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## North Eastern Bee-keepers' Association.

### SECOND ANNUAL MEETING,

AGRICULTURAL ROOMS,

Albany, N. Y., March 15, 1871.

The Association was called to order by the President. The Secretary being absent, J. H. Nellis was chosen Secretary *pro tempore*.

The Report of the semi-annual meeting held at Utica was read; but as no action was taken, it was resolved that we telegraph to the Secretary, requesting him to forward immediately to the acting secretary the minutes of the last meeting, together with the Constitution.

The Treasurer's report was read and approved. The retiring President then read a very able and instructive paper on bee culture, which was highly appreciated, and a vote of thanks was tendered to him for the thought and research which he had given to the subject.

The election of officers for the ensuing year was taken up, and resulted in the choosing of the following gentlemen:

*President.*—M. Quinby, St. Johnsville, N. Y.

*Vice President.*—C. C. Van Deusen, Sprout Brook, N. Y.

*Secretary.*—J. H. Nellis, Canajoharie, N. Y.

*Treasurer.*—J. E. Hetherington, Cherry Valley, N. Y.

An opportunity of joining was given to persons not already connected with the association, and those who were members during the past year, renewed their connection by paying to the treasurer the sum required annually. (Any person may join the association, or renew his connection therewith, by sending one dollar with name and address to the Secretary.)

Adjourned to 7½ o'clock in the evening.

### EVENING SESSION.

Meeting called to order by the President. Minutes of last session read and approved.

Introducing of queens was made the subject of discussion, for the purpose of eliciting experience with the last and most approved methods.

Mr. Van Deusen said, in making artificial swarms he had practised the following method successfully. Remove the stock from which a swarm is to be taken to a new station, some feet distant, and place a hive filled with empty combs

on the old stand. Take the queen, with about a quart of bees, from the old stock, and put them into the hive containing the empty comb. The bees returning from the fields enter the hive on the old stand, and when evening comes, most of the old bees have returned to this hive—making it strong in numbers. In the evening, a queen is smeared with honey and dropped into the top of the hive from which the swarm was taken. It makes no difference whether the queen is fertilized or not, as the young bees are very easily satisfied. The operation should be performed on a fair day. He had introduced Italian queens to black stocks in the fall, by removing the black queens and thoroughly smoking the hive with tobacco, after which the Italian queens were rolled in honey and dropped among the bees.

Mr. Root objected to tobacco smoke, as it leaves the bees very irritable.

Mr. Quinby thought safety in introducing a queen depends on having all the bees well filled with honey when she is put among them, and recommended bee keepers to experiment with this point in view.

Mr. Vrooman said that one season, while using the box hive, his bees were hanging idly on the outside of the hives, and to make a swarm, he had removed a few bees from the fronts of several of the different hives, and uniting them in one body, had put them in an empty hive on the top of which a queen was confined by a tumbler. After the bees were hived, the queen was allowed to join them, and was kindly received.

Mr. Stanton and others thought this method could not be relied on, as the bees would be likely to return to their respective stocks.

Mr. Nellis had tried the method recommended by Baldwin Bros., Mrs. Tupper, and others, in which the queen to be introduced, is confined in a wire-cloth cage, by old worn muslin, which the bees are expected to remove. He did not think highly of it, as out of five or six attempts he had been successful only once.

Mr. Hetherington liked the good old plan better than any other. He had introduced seventy-eight queens at one time, without losing a single one. He described it as follows: Remove the black queen, and let the hive alone seven days; at the expiration of that time, open the hive and cut off *all* queen cells. After the combs are re-

placed, smear the Italian queen with honey, and drop her into the top of the hive.

Mr. Root thought we could not afford to squander so much time in the swarming season. A stock deprived of its queen often loses in a few days an amount of brood equivalent to a swarm. If queens can be introduced immediately, he believes we could afford to lose one out of every five, rather than wait a number of days.

Mr. Van Alstine had paralyzed bees with puff-ball, and after hunting out the black queen, had put the Italian queen among them. By this means queens are easily introduced to box hives. He also united weak stocks by paralyzing the bees.

Mr. Van Deusen had introduced queens in another manner. Take thin sugar syrup and scent it with anise oil, in the proportion of five or six drops of oil to a pint of syrup. Remove the black queen and sprinkle the bees well with the syrup, when the Italian queen will be kindly received.

Adjourned to meet at 8½ o'clock to-morrow morning.

#### MORNING SESSION.—March 16.

The association met promptly at time specified. Minutes of the last session read and approved.

The following question was proposed and discussed:—Will the general use of suitable empty comb, prove advantageous to bee-keeping?

Mr. Hazen was called upon to give his experience. He said he had not given this matter much attention. He once had a stock standing in his apiary, which must have lost its queen, for when the swarming season came the bees were nearly all gone. For two or three days he noticed an unusual stir about the hive, at the expiration of which time a large swarm came from an unknown source, and took possession of the hive. These strange bees were evidently cleaning house, preparatory to moving in. Although the hive was filled with combs, this swarm did not store as much surplus honey as many swarms placed in empty hives.

Mr. Quinby wished to know if the hive was not infested with worms.

Mr. Hazen thought not.

Mr. Quinby.—Was not the comb filled with bee-bread?

Mr. Hazen did not know. His experience with empty combs had not been of a favorable nature.

Mr. Stanton thought it profitable to give empty combs to swarms—especially large ones, as they are apt to build too much drone comb.

Mr. Hetherington said he found first swarms of moderate size built more drone comb than very large ones. He thought the case cited by Mr. Hazen was a very unfavorable one, as the hive was probably filled with old bee-bread and dirt.

Mr. Quinby said the secret of making empty comb a source of great profit, consisted in using the honey-emptying machine. When flowers yield honey abundantly, if swarms are supplied with comb, they fill it before the queen can deposit many eggs, and at the end of the season

the hives are crowded with honey; and although the stocks appear strong in numbers, they are comparatively weak. Honey should frequently be taken from the centre of the hive, thereby giving the queen many opportunities of starting brood. Stocks storing in boxes, should also be treated in this manner, as it does not retard the filling of the boxes, and insures their strength.

Mr. Root said hives containing 2,000 cubic inches were large enough for the absolute wants of the colonies; but when the honey season arrives, the bees should be largely supplied with empty combs. He ventured the assertion that five hundred (500) pounds of liquid surplus honey can be taken from a stock in one season, if carefully and promptly managed.

Mr. Nellis agreed with Mr. Root's assertion and said he would try to obtain that amount.

Mr. Van Deusen said that on the 25th of May he hived a very small swarm with three empty combs. When partly filled with brood, he separated them and placed two empty combs between them. Shortly after this he gave them three frames of brood taken from other stocks. This stock soon became very strong, and gave him seventy-six pounds of white clover box honey.

Mr. Vrooman said swarms hived with empty combs should be supplied with boxes immediately.

Mr. Nellis favored this idea, but thought the bees would fill the body of the hive before comb could be built in boxes.

Mr. Hetherington said one fact had been established—Great quantities of honey are used in elaborating wax; for this reason all clean comb should be saved. He thought empty comb could be used with peculiar advantage, twice in a season; first, to secure brood in spring; and second, to derive the benefits of the honey harvest, by using the mel-extractor.

The following resolutions were offered and adopted:

By Mr. Hetherington.—*Resolved*, That the Executive Committee of this association constitute a committee on publication, and be vested with discretionary power.

By Mr. Vrooman.—*Whereas*, More rules seem to be necessary to the proper government of this association, therefore

*Resolved*, That the President be authorized to appoint a committee of three, to draft by-laws to be presented at the semi-annual meeting.

The President appointed as such Committee, Messrs. Hetherington, Vrooman and Nellis.

By Mr. Root.—*Resolved*, That the President, Vice President, Secretary and Treasurer be appointed and constitute a committee to name the points worthy of consideration in awarding premiums for surplus honey, at the next State Fair; and furthermore, that they confer with the Executive Committee of the Agricultural Society in reference to the same.

By Mr. Hetherington.—*Whereas*, The object of this association—the advancement of scientific bee-culture—has been in a great measure defeated by neglect to give sufficient notice of the time and place of this meeting, therefore

*Resolved*, That the Secretary be requested to

use all available means for giving publicity to future meetings.

A little time being left, discussion was resumed.

Mr. — (I did not get his name) spoke at length upon the richness of our country. He had travelled in Germany, and although that country is noted for the great number of stocks kept, and the intelligence manifested in their management, he thought our land offered superior inducements to the bee-keeper. New York State is indeed a Land of Promise—a land flowing with milk and honey. He was disappointed at not seeing a larger crowd. An organization covering such an extent of territory should have a regular attendance of at least one hundred bee-keepers. He thought proper notice of the meeting had not been given, as he had become aware of it only incidentally. He recommended that notice be given in the papers of the city in which meetings are to be held, as many persons, who do not keep bees, would attend the sessions, on account of their love of scientific discovery.

Mr. Nellis said he had seen an article in a paper denouncing the placing of honey boxes at the sides of hives. The writer said that bees did not fill them as quickly as when placed on the top. He could not agree with this statement and wished the experience of others.

Mr. Hazen has never been troubled with getting bees to work in side boxes, when placed in close connection with the hive.

Mr. Stratton had practised side boxing for more than twenty years, and thought it vastly superior to placing them on the top. He could get twice as much surplus honey by placing boxes at the sides.

Mr. Nellis said, in a number of cases, he placed boxes at the sides or on the top, at the same time, and invariably found the lower tiers of side boxes completed before any others.

Mr. Quinby thought this due to the fact that the bees entered the hives from below, and therefore found those boxes sooner than any others.

Mr. Vrooman had put empty boxes upon hives as late as the 20th of August, which were well filled.

Some one asked the following question—Which is the most profitable, to fully supply stocks with stores in the fall; or give them honey enough to keep them till about the first of April, and then feed them every evening until honey gathering commences?

Mr. Hetherington favored the latter. He thought the superior strength and vigor possessed by such stocks amply paid for all the extra trouble.

Mr. Nellis had not experimented with this point in view, but his experience did not favor such feeding. In the fall of 1869 few stocks were fully supplied with stores, and only two of his had sufficient honey to winter them. After his stocks were removed from the cellar, he fed them every evening; but they failed to gain in strength and activity, as fast as the two which were not fed.

Some of the members had not tried this method of feeding; but all who had, were loud in its praise.

Mr. Hazen then offered the following resolution, which was unanimously adopted, viz.:

*Resolved*, That the greatest success in bee-keeping depends in furnishing plenty of surplus room, thereby keeping all the bees engaged in gathering honey.

Mr. Quinby laughingly remarked that any bee-keeper who did not avail himself of this advantage, could not remain in the business long.

The Secretary was requested to send minutes of this meeting to the different papers, after which the association adjourned.

J. H. NELLIS,

Secretary.

Canajoharie, N. Y., April 12, 1871.

[For the American Bee Journal.]

Novice.

MR. EDITOR:—We wonder if all your readers feel as we do when the Journal is brought in, viz.: that they positively must be released from all duties, however pressing, until it has been *looked over*—not read, for to read it through takes considerable time; and we really cannot feel like laying it by, as finished, until it has been gone over the *third* time. For instance, we first run it over, then read it—*advertisements* and all; and lastly read it carefully and slowly, to make sure that we have not missed anything that we think worthy of being firmly impressed on the memory, and acted on when the proper time comes. By the way, Mr. Editor, we wish it were in our power to impress on the minds of the numerous correspondents who write to us for information, the *very great advantage* they would derive from a thorough perusal of the complete back numbers of the Journal. We are asked the same questions over and over again, that have been so thoroughly discussed in the Journal already; and rather than go over the ground again, we would almost prefer sending them the back numbers at our own expense. In our opinion a thorough perusal of the six volumes would be of more benefit to a beginner, than spending a whole summer in some of the leading apiaries of our country.

Many visitors think, on seeing us work with our bees, that the matter is very simple; yet when they attempt the same, without learning the reasons for each move, and the almost innumerable contingencies that may turn up, (we refer to queen-raising, particularly,) they find that without going down to the foundation of the science, failure is of course almost certain.

If you would succeed, (and we hardly see now where the limit is going to be of what a stock of bees may produce in one season,) *study the subject thoroughly*. In almost every instance of failure, you may, if you look, find from the experience of others, the cause and the remedy plainly pointed out in the back numbers of the Journal.

We are very much pained to see how Alonzo Barnard has misunderstood us on page 263. We think he must have read our criticism rather hastily. It is the *principle* and not the man we object to.



Nothing certainly could give us *more pleasure* than to learn that Mr. Hazen has made a larger profit from *his bees* than we have from ours. We rejoice at any one's success *with bees*; but not in selling the public patent rights for something which they have already.

What has Mr. Hazen invented, or what has he done to further bee-keeping? Were his patent hive ventilated, we fear that it would present a sorrier show than even Mr. King's American hive.

Supposing you paid five or ten dollars for a great secret for charming or quieting bees, and on trial the liquid did really do, in some cases, all that was claimed for it, when you should discover that this liquid was nothing more than sugar and water, should not the public be told that they have it already?

Mr. Hazen has, for the past six years or more, scattered his articles through the press, so carefully gotten up that they were innocently published as giving *bona fide* facts; and yet their tendency has been to discourage all real progress or improvement, with no other design than to advertise indirectly his Non-swarmers, as he claims it to be. [See *Report of North Eastern Bee-keeper's Association*.] If Mr. Barnard could see our apiary, he might think that we had no particular hive, although we have a principle that we act on, whatever the hive may be.

We thank Mr. B. for his candor, and will try and set him right in his view of us. Thus—Take any movable comb-hive that is convenient for the purpose, full of brood and bees. Instead of boxes, place empty frames at the sides of the brood combs, and above, if you wish of course. The hive must be large enough to give the bees all a chance to work. Remove the frames when full and sealed, and *be sure that the bees will at all times have plenty of room*, so that they *perhaps* will not swarm. Is there any necessity for paying Mr. Hazen, or any one else, for the right to do what we have put in italics?

If you think the Eureka hive has any advantage over this, try it, or ask any experienced apiarian, or read the article from C. O. Perrine & Co., page 256.

In one case, the honey is stored in small boxes; in the other, in the body of the hive. [See page 255, "Side-gathering Hives."] The fact that thousands of old boxes do not afford room enough for *any surplus*, or that many bee-keepers who have movable frame hives do not give room, argues nothing. A neighbor of ours, who has Langstroth hives, got no surplus last year, he "didn't have time to put on boxes at all."

We have not mentioned the mel extractor, but the task seems so hopeless of convincing bee-keepers that "overhauling" hives in that way is *much less trouble* than using boxes, that we will give it up for the present, and let them learn it when they get ready, as they have movable frames.

On page 248, Mr. McGaw has got the very erroneous impression that we considered drones from a virgin queen not capable of fertilizing queens. At the Cincinnati Convention we gave at length the result of an experiment convincing

us (if we had any doubt before, for we had read the old Journals too well) that the drone progeny is in no way influenced by the fertilization of the queen. The train of reasoning that has, in some cases, been brought to bear against the old theory is positively "awful"—we can think of no better word. One writer in particular, it seems to us, must see his blunder, if he only reads *his own book* over again.

We have been taking unusual pains this spring to keep our bees warm, to promote breeding, and think more highly than ever of the quilt honey board. Mr. Bickford, we think, gave us the idea. Use strong cloth, or the bees will eat through it. The case with which a hive can be opened, with these quilts on top of the frames, is refreshing.

Of all the foolish things about a bee-hive, we believe a movable side is the most so. Five years ago we deliberated long and earnestly on a Langstroth hive and an American, and having no disinterested friend to tell us better, we foolishly made fifty of the side-openers, and even cut combs out of the Langstroth to put into them. As we have nice straight combs in them, we tried to use them; yet the thirty we have had in use, we feel, have been hundreds of dollars damage to us.

The movable side will shrink and swell alternately, so that it is impossible to make it shut tight; and a new two-story one which the inventor has just sent us, (and we really believe there is not a feature in it that his patents can cover,) would not shut after we had it a week, and now, in spite of all we can do, robbers could go in at the cracks—as in fact they could into all of them, unless a row of sentinels were kept "up one side and down t'other."

We attempted to make a two-story hive of some of them, but have lately seen two different bee friends who have tried the same thing, and they have quite discouraged us in any such "gate post" arrangement. For the benefit of those unfortunates like ourselves, who have the American hive and do not want to destroy them, we attempted to suggest a way, in the Bee-keeper's Journal, in which they might be used; but were so disappointed to find the article so in print as though *we were not aware of the existence* of any other hive, that we shall not probably try it again.

On page 285, the last item of our article should have read, in regard to lady bee-keepers—"how we would *like* to visit their apiaries." The omission of the two words "like to" made our remark look almost disrespectful, for we should be sorry to call on the ladies without an invitation—and even then, our time is too much occupied for visiting much.

In conclusion, we would add that we really do not like to speak ill of any one, and though our criticisms may have seemed harsh or out of place, our only motive was to protect the inexperienced "brother novices" from the false statements and misrepresentations that have been such a curse to the mass of bee-keepers. If patent hive men have the freedom of the Journal to proclaim their wares, they must take the consequences; for *we*, who have no interest



in any hive except its worth to the public, have freedom of speech too. One of the greatest benefits the Journal has accomplished has been in exposing fraud and imposition.

That fraudulent bee-hive vendors may turn honest men, and learn that it is far better to earn their bread (and honey) by the sweat of their brow, is the sincere wish and prayer of  
NOVICE.

[For the American Bee Journal.]

#### Wire Clamps vs. Splints.

MR. EDITOR:—In reading Mr. Quinby's Bee Notes in the American Agriculturist for May, I was once more reminded that some of us had a better way of fastening combs in the frame, in transferring, than by means of the splints which he still recommends in said notes. So I wrote to him how we do it, and now I write to you.



We use wires one inch longer than the frame is, from outside to outside, crosswise, or up and down, as you choose, and bend them half an inch at each end, as shown in the cut above. Hook one or more of these wires, so bent, on one side of the frame, turn the frame over, put in your comb, and hook on one or more of the wires over the comb, on that side, and the work is done in about half the time I have been writing this.

I use the old-fashioned pincers for bending the ends. Perhaps you can find something better, but they answer a very good purpose.

Please tell the people, so that they may no longer waste their time with splints.

The honor of the invention belongs to J. J. W. Billingly, Spring Valley, Marion county, Indiana.

J. J. WHITSON.

Valley Mills, Ind., May 1, 1871.

[For the American Bee Journal.]

#### Questions for Novice.

DEAR NOVICE, will you please answer through the A. B. J., the following questions, viz.:

What is the depth and length of the frames you use in your two-story hives, inside measure; and how many frames do you use in each hive?

What is the distance across the frames?

Do you use the old triangular guide, to secure straight combs?

Have you ever had any trouble with the mel-extracted honey souring?

Do you boil the extracted honey, as recommended by Mr. Langstroth; or do you put it in cans immediately after it is extracted?

Are the cans you use air tight, after they are filled, and ready for market?

INQUIRER.

[For the American Bee Journal.]

#### Death from a Bee-sting.

"A young man, named George Pelham, was stung by a honey-bee, in Westkill, Greene county, N. Y., on Thursday last, (April 27th, 1871,) and died from the effects in less than an hour. The local accounts say that, soon after being stung, he 'complained of feeling faint, and turned spotted.'"

I copy the foregoing from the *New York Times* of April 28th. This is another instance of sudden death from the sting of a bee, and shows how intensely virulent the poison acts sometimes, perhaps according to the predisposition of the body under certain circumstances.

J. N. ROTTIERS.

☞ A speedy application of the *cold water cure*, recommended by Mr. Gallup in a former number of the Bee Journal, might have saved life in this case.

[For the American Bee Journal.]

#### A Season in New Jersey.—No. 4.

Several of the swarms I purchased were quite populous, and as I was not at that time prepared to use them all in my nucleus boxes, I disposed of them in the following manner. Beginning with the most populous, I drummed them out, and hived them in hives fully stocked with worker combs. This was done, not from any preconceived theory, but because I had lost so many bees, and had an abundance of combs on hand. It was done about the first of June, and proved to be the most profitable way I could have adopted; at least it seemed so to me.

There were several objects in view, which led me to adopt this way. I wanted to save the combs, as they were straight and nice; the queens were natives, and I had no Italians to replace them with; and in this way the breeding of drones was prevented. Dry and hot weather soon came on, and for nearly two months bees could scarcely do more than gather a living. Bees, having their combs to build, could neither breed much, nor gather much honey; but these colonies, having a full supply of combs to begin with, laid in a good store to carry them through the season of scarcity, and bred rapidly. In the meantime Italian queens had been given to them, and by the time buckwheat blossomed, they were well stocked with yellow jackets. A few dozen drone cells were built in some vacant spaces, but were removed in season to prevent drones from being hatched. I was somewhat surprised, on receiving the July number of the American Bee Journal, to find a plan therein described almost identical with the one I had followed—which was translated from the German, as an excellent mode of securing surplus honey. The combs containing brood were fastened in frames, and given to colonies where it would be properly cared for.

The exceedingly hot and dry weather for two months in midsummer, effectually stopped small

swarms from prospering, and I was obliged to cease forming nucleus colonies for queen rearing, and feed and take special care of those already formed, to keep them along. About the first of August the huckleberries dried up. An old settler told me they were usually most numerous at that period, and that such a drying time had not been known here for forty years.

I also made the unpleasant discovery that the milkweed here is different from any I had ever seen before, and very abundant. The bees worked freely on it, and many lost their lives in the following manner. The blossoms have very acute angles, pointing upwards. The bees would get their feet entangled in these angles, and the harder they pulled in their struggles, the tighter they were fastened. Nearly every bunch of blossoms had from one to three bees either dead or struggling on it; and I think I may safely say that I saw hundreds that had thus perished, and *know* that a considerable number must have been thus destroyed. I have before now noticed bees with little scales of the northern milkweed attached to their feet; but this wholesale destruction was new to me.

It was certain that at the middle of August, my bees, which had not swarmed, (nor had any bees or honey been removed except from the natural causes above-mentioned), were in no better condition than they usually are in New Hampshire by the middle or last of May. How much of this may properly be attributed to the peculiarities of the season and my inexperience here, is a problem not easily solved. It is certain that had I known what to expect, and prepared myself for it, a far different result might have been obtained. It is not pleasant to record one's failures, but if it shall prove of advantage to others, as I think it has to me, then you are welcome to the facts.

The severe winds ceased in the early part of summer, and the weather was remarkably pleasant and quiet until the middle of October. The first buckwheat I sowed was blasted by the heat; but some sown later proved to be of considerable value. The bees had worked on it perhaps two weeks, when a long rain came on, after which very little more was done. I never before had honey stored so rapidly from buckwheat. The hives had been so poorly supplied that I began to think the bees would not get honey enough to winter on; but one day I discovered that one of them had been speedily filled, and bringing my machine into use, I soon removed from fifteen to twenty pounds from each hive, leaving them enough for winter stores.

I forgot to mention about the toads. There are in this region 799 (or less) on each acre, and just at nightfall they sally forth for their evening meal. They are a small variety, and quite active. One of my neighbors calls them *hoppers*. Now I do not like to kill toads (you know, it makes the cows give bloody milk!), and think I never did kill one before I came here. But when I went out and found one, "squat like a toad," as Milton says, by the side or in front of each individual hive and nucleus box, my patience was sorely tried. As my cows are kept five or six miles away, I thought I would run

the risk, armed myself with a stick, and "went for" the squatters. O my! what a scampering there was among the toads! Ten, twenty, fifty—I don't know how many more were caught "chucking" down the bees. Some, however, got away, and in a short time not a toad was to be found around the hives. I really believe that those which got away were intelligent enough to keep away. The toads did not come back, and the cows *did not* give bloody milk; so I quieted my conscience in that respect.

J. L. HUBBARD.

Bricksburg, N. J.

[For the American Bee Journal.]

### The Non-flying Fertilization of Queen Bees.

Public attention has been for some years directed to securing the fertilization of queen bees by a process entirely under the control of the apiarian, so that, while selecting the choicest mothers, he may also select the choicest fathers of his apiary, for their progeny. It is only within a few years that it has become specially important to control the fertilization of queens. Since we have commenced breeding from different species of bees, it is as desirable to control this, as it is the stock-raiser to control the breeding of his cattle.

Believing that when a thing is evidently desirable, the CREATOR has always provided some means of attaining it, I have experimented largely and persistently to control the fertilization of queen bees. Thus far all my experiments have been failures. One plan I have, which, if others fail, I shall give to the public as a plan promising success, although somewhat too complicated for the common breeders of bees. We have reports from various parties, in communications to the different Journals, in private utterances, and in addresses to bee conventions, of great success, in what I shall call non-flying fertilization, simply by confining queens, when of proper age, in some receptacle connected with the hive, so that they receive sufficient warmth, and then at the proper time introducing to them one or more selected drones. From the evidence presented it seems certain that some queens have been fertilized in this way. But as some of our largest and most experienced breeders have failed in almost every instance in which they have attempted thus to control fertilization, it seems very evident that we have not yet attained what may be called a practical method of non-flying fertilization.

I propose a plan by which this confinement of queens with selected drones may be tested the coming season at small expense and on a very large scale, so that by the efforts of many, in different parts of the country, we may reach precisely what are facts and what are merely conjectures; and if facts, what modifications of the proposed plan may be needed, in order to make it practically useful.

Let a box be made, to fit over the top of one of my hives, in place of a honey-board. Let this box have for its bottom wire-cloth too fine

to permit bees to pass through it, and let it be so fastened to the under side as to be kept about three-eighths of an inch from the top of the frames. The sides of this box may be about six inches deep. Within it place a series of small boxes compacted together, each one of which has a wire bottom resting on the wire bottom of the larger box. Make these boxes of sufficient size and depth to receive a frame of the usual size of frames in nucleus boxes. If desired, the sides of these small boxes may be glass. The top should be movable, having a small hole closed with cork. When the apiarian has a sufficient number of young queens, or queen cells nearly matured, he should make as many nuclei as there are small boxes. Before making these nuclei, let him select suitable nuclei frames containing honey, and each supplied with a small quantity of water. Into each of the frames let a queen cell be carefully inserted. I find the following to be the simplest way of supplying these nuclei with bees. Take from the hives one or more combs. Let them stand for a few minutes, leaning against the hive, until the bees have filled themselves with honey. Then shake them into a large vessel of moderately cold water. With a skimmer gather them together, and put the required number into each box. The whole process will occupy scarcely more time than has been used in describing it. When the large box is filled with these small nuclei, place over them cotton, wool, or some other good non-conducting substance. They will then receive through the wire-cloth of the bottom board, and retain, all the animal heat that is necessary to mature the queens. By inspecting these boxes through their glass sides every bee can be seen, as in an observing hive, and the apiarian can always ascertain when the young queens have hatched. Then, when they are about five days old, let him remove the cork and put into the nucleus one or more selected drones. If any light is needed, in order to secure the fertilization of these queens, it may be introduced by raising slightly, or, if desired, removing entirely the top cover of the hive, and the small boxes may be separated by wedges, to admit the light more perfectly. If the outside temperature is not sufficiently elevated for the fertilization of queens, (I find that a temperature of about 70° is usually necessary for this purpose,) it might perhaps be useful to remove the large box containing these nuclei from the hive and place it upon heated sand, bricks, or some other warm but not too hot surface, at about one or two o'clock in the afternoon, the time in which queens are usually fertilized.

In this way we might possibly secure the fertilization of our queens quite in advance of the usual season, as we can always, by retaining a few drone-laying queens in the apiary, have an abundance of early drones. One advantage of the method thus described is the large number of nuclei which may be made in connection with a single hive; and the fact that this box, with its nuclei, may be at any time removed and replaced, without interfering with the members of the colony; one or all of the nuclei may be removed without opening the hive.

If the queens can in this way be fertilized, and if the comb containing honey is, as it should be, a suitable breeding comb, they will in a very few days begin to lay. As soon as we are satisfied that the desired end has been secured, the queen may be removed, the attendant bees shaken out, and a new queen cell with fresh bees added. It will be seen that with one hive a large number of queens may be secured in a single season.

L. L. LANGSTROTH.

Oxford, Ohio.

[For the American Bee Journal.]

### Wintering Bees.

EDITOR A. B. J. :—I have two items of interest to write about—one, on the result of wintering my bees on their summer stands; and the other, "Foulbrood," which I have treated in accordance with the suggestions of Dr. Abbe.

*First*, as to the result of wintering out of doors. When I commenced "improving" my bees, five years ago, according to the suggestions of the authorities, I determined to save the great waste of honey, incurred by their vigorous appetite in cold weather. I was very successful, for I saved almost all the honey, though, alas! in some cases I lost the bees. We cannot all have the perfect bee house of Novice or the ventilating skill of Gallup; so, though most devotedly trying upward and downward ventilation, in a dry cellar ranging at 40°. I found mouldy combs and sadly weakened stock. Some few hives came out in perfect condition, but were always later in swarming than my neighbors' stocks, left out in their box hives on their summer stands. Last fall I prepared warm wadded quilts, which I laid on the frames and pressed down with a weight, covering with the cap, as usual. We had an unusually severe winter, yet I do not think there was ever more than ten days without an opportunity for the bees to fly out in the middle of the day, which I allowed them to do whenever they chose. Seeing many young bees I examined the stocks, April 26th, and found them in most instances full of brood—hardly an unoccupied cell. Two hives had drones, and one had started queen cells. My stocks are all black bees. You see I have now the opportunity to strengthen weak stocks, with frames of brood, as we shall not have blossoms till the middle of May. I feel to have gained about a month, by wintering out of doors; and have found neither mouldy combs nor dead bees. For the future I shall always winter out of doors, except a great scarcity of honey should compel me to once more run the risks of the cellar to avoid expense of feeding. Of course my experience is not necessarily adapted to other latitudes; but bee-keepers hereabouts will, I believe, find the out-door wintering, under a wadded quilt, much better than putting their stocks in the cellar.

### FOULBROOD.

I had several stocks badly effected last fall, which I spread with hypo-sulphate of soda, as recommended by Dr. Abbe; but I took the pre-



caution of cutting out all comb containing diseased brood and *pollen*. I was very particular about the pollen, for I believe that to be more likely to communicate the disease than the honey; and I now think that my experience *almost* proves it. These stocks were well supplied with brood and young bees—though, having been weakened by the disease last year, they were not as strong as the healthy hives. I can only find a *trace* of the disease—perhaps half a dozen dead larvae to a card. Of course they have used their honey for all their requirements; and they carried in meal for pollen, till the swamp willows supplied them. Now, if the honey communicates the disease, how is it that so little has appeared, for being capped, it is impossible that the hypo-sulphate should have purified it?

I feel much indebted to Dr. Abbe, for he certainly enabled me to *check* the disease. I gave some of my stocks, last spring, cards of comb without honey, but containing a good deal of old pollen. I cannot now identify the particular stocks, but as I never found foulbrood till last fall, I am very much inclined to consider that pollen as the "destroyer" of my apiarian comfort and repose. As there is now so much brood, I do not see that I can use the soda again to any advantage at present; but I feel so desirous to be rid of the disease, that I think I shall, after the stocks become strong, put them in an empty hive for thirty-six hours and treat them as a new swarm in an empty hive. I will then thoroughly uncap and purify the combs, after which I shall venture to use them again, unless they become badly diseased before then, which I do not think probable, from present appearances.

As my stocks would have been worthless and dangerous, had they been "let alone," I feel the result of their treatment with soda most encouraging. It is, however, yet an open question whether the removal of the diseased comb and pollen would not have checked the disease to the same extent, had no soda been used. But most certainly there is no necessity to destroy every stock containing foulbrood, as has been recommended by some writers in the American Bee Journal.

We shall have but few apple blossoms this season, as the trees seem to have exhausted themselves with their abundant fruitage of last year; but I look forward hopefully to the time of clover, as I have many acres of Alsike around the apiary.

CHARLES DAWBARN.

Stanwich, Conn., May 3, 1871.

[For the American Bee Journal.]

#### Requisites of a Hive.

MR. EDITOR:—The 13th and 14th of January were very warm days here. The bees flew just as lively as at any time in summer. The hybrids (the little snoops, as my better-half calls them) pitched in several swarms of black bees to rob, and I had to shut them (the little snoops) up. In one hive that they were fighting, I found the queen at the entrance or fly-hole, in a bunch of

black bees of her own colony. The little cluster was of the size of a walnut. It was a good strong colony, with plenty of honey, and ten frames one foot square well covered with bees. Did the hybrids, in their eagerness to rob drag the queen out, and her own bees gather round to protect her? I caged her and put her in the hive; and examining them four days after, found they had liberated her.

*Something more on hives.* For my text on this subject I will use the following words—"The shape and form of hive which the apiarian uses, has a great influence on the loss or profit of bee-keeping." The majority of bee-keepers only keep a few swarms, and do not want to be at the expense of making a beehouse to winter their bees in; and then the trouble of carrying them in and out every warm spell, or keeping the temperature just right, so that the bees will not fly, is no small or desirable job. I think I am safe in saying that not one bee-keeper in ten, will go to the trouble of wintering his bees in a special repository. Hence the necessity of a hive so constructed that bees will winter safely in it on their summer stands, without being roused by the sun shining on it and causing them to fly out and perish in the snow. All bee-keepers know that such occurrences are very detrimental to the strength of a colony; and from this cause alone thousands of colonies annually, if not killed outright, are so reduced that it takes them all summer to recruit. A hive is needed in which the bees can keep warm in, through long protracted cold spells, or all winter if necessary, without the aid of the sun's rays, and yet not have the combs covered with frost, while the bees are starving to death, though surrounded with plenty of honey. A hive simple in construction, which, when finished, any bee-keeper of common sense can use, without requiring an agent who has learned his lesson by heart to explain all its intricate parts—a hive, too, in which the combs will not melt down in summer. Such is the hive the common bee-keeper needs.

Now, Mr. Editor, and brother bee-keepers, you may think that I have invented a hive embracing all the good qualities above enumerated. I make no such pretension. There are already hives enough invented to puzzle the bee-keepers to decide which to use, especially if they listen to every inventor's claims. I am not going to say which is the best hive, for I think there are very few that will meet the above qualities, out of the many that have been patented; and Dr. Pucket would no doubt pitch into me, as he did into Mr. Rogers, and say that it was only his *ipse dixit*, or that it would need more than his bare assertion to prove it. I do not think it was a gentlemanly remark, and after giving it a second thought, do you Mr. Pucket? I always thought we were to take the word of a stranger, unless he voluntarily offered to swear to it, or told such a big yarn that no one could believe it; and I certainly do not see anything of that kind in Mr. Roger's statement. It was a plain, candid response to your own request, and every way merited a dispassionate and courteous acknowledgment. But I have got off from my text, and will return if I can, and try to stick to it.

I have tried the J. M. Price hive. I do not mean the revolvable, reversible one; but the one described in the Journal, Vol. IV, page 87. The Dr. Conklin hive embraces nearly the same principles, and is, I think, more convenient for surplus honey boxes and for shedding the rain. Alley's Langstroth hive, with its side box arrangement, deep brooding apartment and outside covering, is a good hive, if we can credit the statements of the side box arrangements; and why shouldn't we credit those statements? Such experienced veterans as Quinby, Gallup, Hazen, and others I could mention, would not knowingly make statements to lead their brother bee-keepers astray.

I took two swarms to O. E. Wolcott's to have them Italianized. In a few days one of them cast a swarm. Mr. Wolcott put them in a Langstroth hive. On the 13th of January I found them nearly all dead; the few bees that were living looked nearly as large as queens, appeared to be damp, and discharged all over their combs and frames, but had plenty of honey. They had just the appearance of two swarms that I left at the north side of the house through a long spell of cold weather. They had upward ventilation in caps; and so had this swarm that I lost in the Langstroth hive. I examined the rest of my apiary, and did not find one-fourth as many dead bees in thirty colonies, as there was in this one Langstroth hive. I had three young swarms away from home near a buck-wheat-field. They were brought home at the same time and had the same care that the one in the Langstroth hive had, and they are all bright and lively. Some may claim that they got the bee cholera from Wolcott's bees (Wolcott uses the Langstroth hive and lost over forty colonies last winter). From the description he gives of the symptoms of the bees that he lost, the case is similar. If it is the cholera, why did not the other two have it? And will not my whole apiary have it, for I allowed my bees to make free plunder of the honey that was left? I am so well convinced that it was the hive that I have no fears of the bee cholera from that source.

This is the third winter that I am using double-cased hives, and I have yet to lose my first swarm in them. As Novice says, I am so well rooted in this belief of my text that the shape and form of hive which the apiarian uses has a great influence on the loss or profit of bee-keeping, that the best antidote for that bee fever that I wrote of in a former number of the Bee Journal, would be to use the shallow hive.

JOHN MIDDLESWORTH.

Byron, Michigan, Feb. 11, 1871.

The poets, always exalting and magnifying the subjects which they touch, have contributed perhaps more than any other set of writers to mislead our judgment. They endow the bee with memory, and Rogers thinks that it finds its way back to the hive by this faculty alone. Nor is it only with regard to the bee that poets, the worst entomologists in the world, have led us astray.—MRS. GRIFFITH.

[For the American Bee Journal.]

### Things Past, Present, and Future.

It is now over thirty years since our experience with bees commenced here, among the hills of Northern Vermont. We had then no scientific bee-keepers to instruct us, and access to no books or periodicals devoted to bee-culture. Now, we have scientific and infallible rules for success, and line upon line for our guidance, and "the way is so plain," &c. How strange that so many in this new era spurn the proffered aid and follow the old "do nothing" plan, or what is even worse, recklessly ruin their bees by their inhuman interference.

We are now plodding along in the footsteps of our most illustrious bee-men, and our path is radiant with light reflected by our invaluable Bee Journal. Now, in this connection, will any one object to the expression of a long growing conviction, that there is one infirmity that should not be allowed to get "rooted," or become chronic. I refer to the controversies in the two or three last volumes of the Bee Journal upon patent bee-hives. This seeking an opportunity to give an opponent a *horn* too much; then the explanations and apologies that follow, remind me of the Yankee whose bull, getting the advantage, threw him over the fence, hurting him severely. The Yankee arose with difficulty, and turning to the bull, said—"Well now, I say it is devilish mean for you to stand there bowing and scraping at me. You did it on purpose, you know you did!" These things do not tend to "brotherly love," nor that "strong bond of union" which is the life of our fraternity.

Mr. Langstroth is entitled to sincere and heartfelt thanks for his successful labors in behalf of bee-culture, and most assuredly to all money due him, with interest. If he is the inventor of the movable comb frame, our obligations for that are inexpressible; but if only an improver upon the inventions of others, they should share the credit with him. Thousands will rejoice when the reading columns now devoted to personal controversies or advertisements of worthless complicated fixtures, are filled with simple talks and short direct inquiries for beginners in bee-keeping; then we can recommend it to such of our numerous inquirers. Oh, won't it be joyful! I use the original Langstroth hive, with glass boxes or extra set of frames; and think it unequalled for simplicity, cheapness, and in-door wintering. My colonies paid the best, in honey and increase, of any in Vermont reported yet.

We have organized a bee-keepers' association, and would like to have the address of bee-keepers in the State; also a statement of condition, progress, &c. Address,

O. C. WAITE,

Secretary of Association.

West Georgia, Vt., May 2, 1871.

[If our respected correspondent, who sees only the published controversial articles, could also see the large number of communications relating to the hive question still flowing in from month to month—for most of which we cannot make room, and many of which we are constrained to reject—he would be apt to conclude that the time for inhibiting or even more rigidly restricting discussion, has not yet arrived.—ED.]

[For the American Bee Journal.]

## A Suggestion, to avoid Controversy.

MR. EDITOR:—With your permission, I will place before the readers of your valuable Journal, what I regard as being the duty of all persons engaged in the sale of patented bee-hives, and also the duty of those who purchase them. Let every patentee specify in his circular, as well as in his deed, precisely what his claims are; then let every person desiring to purchase the right, examine them in connection with the hive they are intended to protect. This will enable all parties to ascertain to what extent, if any, the hive itself infringes upon the claims of some one else.

It is claimed that many hives in use are infringements upon Langstroth's patent; or in other words, that they contain features not granted by the Patent Office, outside the real claims which have been granted; and which outside features are direct infringements of the Langstroth claims. Now, if any inventor or patentee wishes the law to protect what the Patent Office has granted him, he certainly ought to be sufficiently liberal to let the same law protect the claims of others. And in my opinion he will do so, if he is just; but he falls far short of this duty when he adds to his claims those of Mr. Langstroth or any one else, without stating pointedly what the hive he sells contains, outside of his own patented inventions, and which are infringements upon the patented claims of other parties. For when hives are sold containing the rights of different inventors, without advising the buyer of the fact, the latter is at once subject to the penalty of the law, if he puts what he purchases in use;—and this, too, in many instances without a knowledge of the fact that he has put in use in his hive features which are the property of others. Such a course on the part of hive dealers, when closely looked at, is certainly a gross violation of the true principles of justice, and cannot be treated with contempt sufficiently severe. Indeed, it occurs to me that the man who will ask the law to protect his claims, and then knowingly infringes upon his neighbor's, would spit tobacco in his best friend's eyes, and then complain if asked to submit to similar usage himself. I therefore hope that all persons wishing to use movable combs, will ascertain just what Mr. Langstroth's claims are, so that when any other hive is offered to them, they may be able to judge as to what extent, if any, it infringes on those claims. Then, if willing to purchase a hive containing such infringements, they will have no just grounds on which to base complaint of having been swindled or imposed upon.

I own some Langstroth territory, and find parties engaged in selling hives therein, containing infringements. In some instances, in order to effect a sale, agents have been base enough to assert to purchasers that the Langstroth patent has expired; in other instances they state that it does not cover any part of the movable comb. My own course is to state, in my deeds, what features I have for sale. I have a general agency

for the sale of a hive containing patented features, and I have those features clearly set forth in each deed. As to what extent, if any, it may contain features of some other patent hive, I am unable to say; yet it does contain some that are in dispute. These, it is to be hoped, will soon be decided by a proper tribunal, when all can judge correctly as to what part of the movable comb is a valid patent, and what part, if any, is not. If it is decided that any considerable portion of the movable frame is protected by letters patent, then parties who have it in use in different forms, may know just what to look for, and to what extent they are infringing upon the Langstroth patent, and I do hope that Mr. Langstroth will get justice done him, be that whatever it may.

G. BOHRER.

*Alexandria, Madison Co., Ind.*

[For the American Bee Journal.]

## What More is Wanted?

There is an apparent effort on the part of some to make Mr. Langstroth, and perhaps others, think that I do not give him the credit of first introducing the movable combs to the public. What else can "Novice" mean on page 206 of the Bee Journal, where he says, "Had Mr. Quinby been at the Cincinnati Convention he would have found there is a very strong tendency to give Mr. Langstroth the whole credit of introducing the movable comb hive, now at least." Editorial notes on page 184 are of similar import.\* Now I have no cause of quarrel with Mr. Langstroth, and I don't think he has any with me, and as I am a little weary of the subject, I propose to say definitely what I do concede to him, and will quote his own words from a circular published by him in 1867. He says—"Movable frames were used by Huber more than eighty years ago, and the first edition of Langstroth's work on bees, published in the spring of 1853, while describing them, gives ample credit to their celebrated inventor." He claims to have taken the crude arrangements of Huber and others, and made a convenient practical, movable comb hive of it, and introduced it to the public. Of this I have not a doubt, and I challenge "NOVICE" or any one else to specify where, or when, I have ever said or intimated anything to the contrary.† He applied for and obtained a patent, which he was of course entitled to, and I do not know the man that would withhold gratitude for the success he has achieved.

When Watts had given the hint of the power of steam,‡ and Fitch had completed an engine,† and Fulton combining other principles produced the steamboat,‡ could he—Fulton—claim all as the result of his invention? Neither can be

\* The editorial notes were not exactly "of similar import." They were intended to express surprise that Mr. Quinby insists on and persists in denying Mr. Langstroth's claims as inventor of the movable comb hive. If he is not the inventor, pray who is?—Ed.

† There is such a thing as "damning with faint praise."—Ed.

‡ Is this stating the case of these parties fairly, and doing them justice respectively?—Ed.



credited with the river and ocean steam palaces of to-day. Mr. Langstroth made a great improvement, but he does not assume perfection. He says, on page 106 of his book, "I would, however, utterly repudiate all claims to having devised even a perfect hive." This is consistent, and if another makes a still further improvement, he is of course entitled to credit, and a patent if he wants it. All have the privilege of preferring Mr. Langstroth's hive to any other. If somebody finds one he considers nearer perfect, let him prefer that.

Let us have peace. \*If we have the good of bee-keeping at heart, instead of all dollars and cents, we must stop quarrelling about honors, and work for the good of all. I hope to do so.

M. QUINBY.

St. Johnsville, N. Y.

\* Certainly, let us have peace. There need be "no quarrelling about honors;" and laboring to ascertain historical facts is a very efficient mode of "working for the good of all."—Ed.

[For the American Bee Journal.]

### More Facts and Fancies.

So far as my limited time would allow for such purposes, I have made some experiments and observations in the bee business the past season, and though I have developed nothing new or strange, I propose to give some of my experience, as such things from others are always interesting to me.

#### EXPERIMENTING.

Seeing a new settler, who had built a new house too late in the season for plastering, lining the walls with a thick pasteboard-like paper, I believe the idea struck me that it would make an excellent lining for a hive, as I had seen something about paper hives. I immediately procured some of it and put a lining in two hives, leaving a hollow space of one inch between it and the board sides. It looked very nice, and I thought I had a good thing of it. I also made movable sides of paper for a hive, into which I transferred a colony, being too impatient to wait for the swarming season. To my surprise, the little rascals commenced gnawing away the paper sides and throwing it out in chips like sawdust. I first thought that it was not possible for them to cut through such solid stuff; but on examination found holes through both sides nearly as large as my hand. I had to remove them and put in boards. But what should I do with the two new hives with paper linings? If I put bees in them, they would soon eat them out, and a fine place for moths it would be. Putting boards in its place would make the chamber too narrow. Seeing some china matting around an old tea-chest laying by, I thought that would be too hard for their teeth, and the quickest way to remedy it, would be to tack some of this over the paper, which I did. I have put in swarms, and they seem to do well so far. I have since seen it stated that this paper will become damp and fall to pieces. I will watch the result, but make no more paper hives.

#### THE QUEEN YARD.

Being anxious to prevent swarming in some of my colonies, I made and applied to two hives what Mr. Quinby calls a queen yard. It answered the purpose of keeping the old queen with wing clipped, from going off with the swarm. I think it probable, as some correspondent states, if the queen would try to get out she could. I saw her come out into the yard on two occasions, and soon re-enter the hive; but she made no attempt to get over the sides of the yard. The swarms, of course, returned to the hive. The "swarming fever" would get very high, and it lasted for several weeks; and although supplied with a large amount of surplus box room, they would neither build comb nor store honey anything like in proportion to their numbers, but lay idle in their boxes, waiting for a young queen to hatch. The hive must be carefully examined once a week, and all queen cells cut out. It is a nice job to examine a large hive teeming with its thousands of inhabitants, and be sure to get every queen cell. I tried to be particular, but one day I found the old queen and a fine large well-matured young one lying dead in the yard. I could find no young queen in the hive, but several cells nearly matured, one of which I allowed to hatch and supply the hive with a queen. Then the swarming fever ceased. The other old queen was also lost, but I could never tell how. She may have crawled over the sides of the yard, trying to follow the swarm, or the bees may have killed her and carried her off. I allowed a young one to mature and hatch, and supposing she was doing well, did not examine for some time, and then found the colony queenless and without brood. Whether lost on her bridal trip, or whether she went off with a swarm, I could not tell.

By the way, I never knew a queen with wing clipped, suffered to remain in a hive over twelve or fifteen months; sometimes destroyed in fall or winter, too late for drones. How is it with others? I applied these yards to my

QUINQUEPLEXAL, DUPLEX, COMBINATION HIVE, an account of which I probably ought to give. Well, I have made no big thing of it. April 21st, transferred a rather weak colony to it. With a division board in and a little stimulating, they did well, and I added other frames of comb. June 4th, gave them their full complement of frames, by adding four frames full of brood, and soon after put on the side boxes. Swarmed June 19th, and again June 25th, each time returning. Clustered in the side boxes, but did not make much honey in them. When six boxes were nearly full, I put the top boxes on, (capacity about 35 lbs.,) going upon the principle that the more box room you gave them, the better they would work in them. They immediately entered the top boxes and commenced work, but did not make another inch of comb in the side boxes. This does not prove that they will work in the side boxes in preference to the top ones; nor do I take it as conclusive evidence to the contrary.—Became queenless, and ceased to work in boxes, but filled up the combs in the body of the hive, some of which I emptied

with the honey extractor. Got only about thirty pounds of box honey and ten pounds of extracted honey, and some unfinished combs. As this does not "come up to the mark," I have determined to curtail its name and dispense with the "superfluous honey-producing" part, which I was led to give it from the fabulous reports of Mr. Hazen and others, as to what these side gatherers would do. But, seriously, I hardly think it has had a fair chance, and I must defer judgment until further trial.

#### A TWO-STORY LANGSTROTH HIVE,

allowed to swarm once, together with its swarm in the same kind of hive, gave me the largest yield of honey, and more surplus honey in frames, in new comb of this season's make, than any four other hives with their increase, with only surplus boxes on top. I also took some honey from them with the extractor, late in the season. My memorandum of weights I regret was lost.

#### WINTER PREPARATIONS ON SUMMER STANDS.

My hives are all wintering on their summer stands, cloths spread over the frames, or over honey boards with holes open, and the caps filled with dry leaves. In some cases old bags filled with leaves or feathers are pressed down in the caps over the covered chamber on the frames. I have not seen leaves recommended for this purpose, but should think they would answer very well, as they are a good absorbent and warm. The caps have a lid or cover fitting like that of a bandbox, which makes them very easy to fill. The double-cased hives have the space filled with dry grass or leaves. With the honey boxes removed, and the space they occupied filled in, my quinqueplexal, duplex hive makes a fine wintering apartment; so, I have no doubt, does Mr. Alley's new hive. But when Mr. Alley made that comparison of his new hive with the fifty old Langstroth hives, and found the brood more advanced in his than in any of the others, I would ask him if those old hives had the same protection as his new ones? My two-story "low flat hives" have an outer case similar to his, with a space of four or five inches between all round. For wintering, remove the frames from the upper story, lay some inch strips across the frames below, spread a cloth over, and fill the upper story with dry leaves; also fill the space between the hive and outer case. These are now in proper condition to compare results with his new hive.

These winter coverings may be used to great advantage, to retain the heat in the spring and promote early breeding. When the spring examination is made, the honey-boards with holes all closed are fitted tightly in their places; the cloths spread on top the honey-board, and the cap filled with leaves, the same as it was in winter. This prevents the heat from escaping, and keeps the top of the hive warm, which may be readily perceived by putting your hand under the covering on top of the honey-board.

#### STRAIGHT COMBS.

I find a two-story hive convenient to get straight *all worker comb*, in this way: after the first swarm has issued, all queen cells but one

are removed to prevent a second swarm. While the young queen is maturing, the most of the combs will be filled with honey, so that when she commences to lay there will be but little room for her to deposit eggs. Now remove two or three frames of honey to the upper story, and supply their place with empty ones, putting them near the centre, between combs already containing some larvæ. These frames will be filled rapidly with all worker straight combs, and filled with eggs as fast as made. The full frames placed above, will induce the bees to commence comb-building there. Combs made in the narrow frames of my combination hive were uniformly straight.

I am greatly indebted to the Journal for the receipt for making cement of lime and curd from sour milk, for fastening guide combs to frames and in surplus boxes. I never could have any success with wax or resin that had to be applied hot; but with this cement, combs cut into strips only two or three cells deep, may be very rapidly and securely applied to frames, and are preferable to any comb-guides I ever used, even when only every alternate frame is furnished with them. Small pieces of comb, only one or two inches long, can be used, and made to answer as good purpose as any other.

THADDEUS SMITH.

*Pelles Island, Jan., 1871.*

[For the American Bee Journal.]

John's "Facts and Fancies" might be Improved.

Page 232, Bee Journal, he says, "six years ago I got Langstroth's book, and studied it until I had it by heart." "Afterwards I got Quinby's." "It was midnight darkness about movable comb hives, and the modern improvements in bee-keeping." Of course, this means that I was then using box hives. Six years ago would have been about 1865. Quinby's book, published in 1859, contained an appendix with cuts describing fully a modified form of Langstroth's hive; and had then (1865) been before the public six years. A little obscurity here, if not midnight darkness. He says further: "It demonstrated this, that there never was a hive to equal the common box of the Quinby pattern." The first edition of the book in question, was published in 1853, recommending the common box hive as superior to any other in use at that time. In 1856, after reading Langstroth's book, and getting a favorable idea from him personally of the movable frames, I adopted them. A little experience convinced me of their utility, and I have used them since. Langstroth himself mentions my use of them in a note on page 331 of his work, (revised edition of 1859,) a fact which should not have escaped "John," with his intimate knowledge of that book. The appendix, indeed, to my book in 1859, has gone into the hands of thousands, and although it was not the first step taken, it was an additional one; and did, I trust, induce some to adopt them.

Has "John" done bee-keepers a service by thus misrepresenting facts? I would suggest

that he pays more attention to "facts," and does not indulge quite so much in flights of "fancy."

Now this "modern improvement" has been my pet theme, and I am sanguine enough to feel that I have not labored altogether in vain, even though "John" fails to see it. One man that carried out some of my suggestions, realized the past season, on surplus box honey, over 25,000 lbs. from 315 hives. More than one-quarter as much as the 120 bee-keepers at Cincinnati from 5,051 hives.

Allow me to suggest to "John" that, unless he wishes to say something of which he is ashamed, his real name would be more satisfactory.

M. QUINBY.

St. Johnsville, N. Y.

[For the American Bee Journal.]

### Profit of Bee-keeping.

MR. EDITOR:—I received to-day, from the Commissioner of Agriculture, the following letter:

"WASHINGTON, January 9, 1871.

SIR:—Will you be kind enough to furnish me with a detailed statement, from your own experience, showing the profit of bee-keeping, embracing number of swarms kept last year, cost of keeping, sales of swarms and honey, &c.? Such information as you may be able to give upon this subject, will be gratefully received.

Respectfully,

HORACE CAPRON."

I send you enclosed a copy of the report I made in reply, which you may insert in your valuable Journal, if you think it will interest your readers.

As this report seemingly contradicts some of my former reports, I will add in explanation, that the season of 1870 was an extra good one; that I got the largest amount of my surplus honey from my outside apiaries; and that even in this extra good season, I had not over nineteen pounds surplus honey per stock, as an average yield, in my home apiary. The highest yield of strained honey from any of my stocks was one hundred and fifty (150) pounds; and the best yield of honey in the comb, one hundred and forty-six (146) pounds.

When I can find time to do so, I will write down my views on over-stocking, for your Journal.

Respectfully yours,

ADAM GRIMM.

Jefferson, Wis., Jan. 12, 1871.

### REPORT.

HON. HORACE CAPRON,

Commissioner of Agriculture.

SIR:—It is with pleasure that I make the following report, in compliance with your request of January 9th:

In consequence of the total failure of the honey harvest of the season of 1869, the only

one I experienced in twenty years, I wintered safely only six hundred colonies out of six hundred and seventy. These, with the exception of about one hundred, were in poor condition, some of them containing only about a teacupful of bees; and I subsequently lost about a dozen more of the number. Out of the remaining five hundred and eighty-eight, I sold, at the beginning of May, thirteen of the best colonies; leaving me five hundred and seventy-five living stocks. These, however, did not contain more bees than three hundred colonies contained the spring previous. During the month of May, I deprived thirteen colonies of their queens. These, and eleven more queenless colonies, gave no yield of honey or swarms, only a few more queens were taken from them. About fifteen more colonies were used to supply queen-raising nuclei with bees and brood, and gave no yield of honey or swarms—leaving, in all, five hundred and thirty-six (536) colonies to produce the surplus honey and the increase of stocks.

From this number of colonies we saved three hundred and thirty-eight young swarms, almost all natural ones. No swarms went away, though some united together, and were not separated in hiving. I had, therefore, after the swarming season, nine hundred and three (903) colonies. But this number is greater than any one apiarian can attend to, with such help as I want to employ. I therefore united, in August, one hundred and sixty-four (164) colonies; took the honey out of the combs by the melextractor, and saved the combs. The bees of nine colonies were sold and shipped off, leaving seven hundred and thirty (730) colonies for wintering in. In counting my yield of surplus honey, the winter stores of one hundred and seventy-three (173) colonies, united and sold, are included.

In common and good seasons the bees will always support themselves. There is no outlay for food, though hives and surplus honey boxes cost considerably. New hives are only necessary when the apiarian wants still to increase his stocks. In my case, I have to get up a number of stocks every year, to replace those that are sold. New hives with one set of honey boxes, cost me about \$2.50 each, counting my own labor at \$2 per day.

My yield of honey last season was as follows:

Box comb honey .....	11,500 pounds.
Prime comb honey in frames.....	1,500 "
Strained honey .....	7,725 "
Honey in old combs, in frames	
and hives. ....	1,720 "
Used in family and given away...	280 "

22,725 pounds.

This amount would certainly have been doubled, if my stock of bees had been in good condition in the spring.

This honey is not yet all sold. All the white box honey, and all the white strained honey was sold, and some of the dark and mixed for \$3,180, net. I have yet on hand 4,175 pounds, and in the hands of commission merchants, remaining unsold, 340 pounds of strained honey, making a total still on hand of 5,015 pounds. This honey, being mostly mixed and dark, will not bring



much over fifteen cents per pound, deducting expenses, or about \$750. No prudent bee-keeper, however, will sell all his honey. He ought to keep, in reserve for contingencies, about ten pounds for every hive wintered.

The average price for honey sold is about nineteen cents net per pound. Strained honey sells for about one-third less than nice honey in the comb.

The sales from my apiary, during the present season, figure up as follows:

For honey.....	\$3,180 00
For queen bees and stocks.....	1,151 00
Add to this,	
For honey remaining unsold.....	750 00
Value of sixty stocks which I wintered more than the season before.....	600 00
Strained wax on hand, 206 lbs. @ 30 cts.	61 80
	<hr/> \$5,742 80

The value of surplus stocks is no guesswork.

I sold a few days ago, to two parties, two hundred and forty (240) colonies of bees for shipment to Utah, for \$2,450; but these sales have to be counted with the present season's business.

The help I employ is the following:

A hired man the year round at about \$350, board included. Four children from eleven to eighteen years old, during swarming time. They would cost me, if strangers, about \$100, board-included.

To this has to be added the outlay for hives, honey boxes, expenses for keeping a horse and wagon, postage for queen bees shipped by mail, and sundries. Not keeping account of these, I cannot tell exactly how much they amount to. Perhaps five hundred dollars (\$500) would cover the whole.

I keep my bees principally in three locations, from three and a half to six miles apart, until after swarming time, when I scatter them still more. The greatest number of stocks I ever had in one location was three hundred and ninety-three (393). I find, however, that the yield of honey from such a number averages less than from a smaller number. One hundred colonies in one location is all that can be kept without materially injuring the yield of honey by single stocks. At three miles' distance, another hundred could be kept, and so on.

The Italian bees are favorites with me. I keep them exclusively.

Respectfully yours, &c.,

ADAM GRIMM.

Jefferson, Wis., Jan. 12, 1871.

[For the American Bee Journal.]

### How to make a Honey Extractor.

Several correspondents have lately made inquiries about honey extractors. I will give you a description of mine. I first made one with a wooden frame and wooden shaft, with wire cloth sides against which to lay the combs. This frame was made of a size suitable to hold a Langstroth frame set up endwise, say ten inches wide

and eighteen inches deep, and made to revolve in a barrel. This worked perfectly well, but a friend wanting it, I parted with it, and made another on a different plan, using no wire cloth, no woodwork and no barrel. I wanted especially to be able to hang the frames in the extractor precisely as they hang in the hive. This would, of course, require a holder larger in diameter than a barrel. I bought a tub measuring twenty-four inches across, and had it lined with zinc, some sheets of which I happened to have on hand (tin would answer as well); and as the tub was too shallow (only twelve inches deep), I had the zinc extend up above the sides three inches, making the depth fifteen inches. In the middle of the bottom solder a tin or zinc tube, three-quarters of an inch in diameter and four and a half inches high, to hold the foot of the shaft in place, and to keep the honey away from it. Through the side of the tub, and near the bottom, bore an inch and a quarter hole, cut out the zinc and solder in place a tin tube or spout for draining off the honey into bottles. Mine is made just large enough to receive a common molasses faucet, which works well.

The framework which holds the comb and revolves with it, consists, 1st, of a shaft made of a piece of quarter inch gas pipe, eighteen inches long, plugged at the lower end with a piece of iron, turned or filed to a point, on which the whole framework turns. 2d, two pieces of flat bar iron, say eighteen inches long, an inch and an eighth wide, and one-eighth of an inch thick. Bore a hole in the middle of each of these pieces, just large enough to pass the gas-pipe shaft through. These two pieces are made of pretty stiff iron, so as to be strong enough to hold up the rest of the framework, and also the heavy combs that are to be emptied of honey. The rest of the frame is made of white wire clothes-line (thanks to Novice for the idea), requiring of it for my machine twenty-eight feet. Cut off two pieces, each five and a half feet long, and straighten them. Twelve inches from one end make a right-angled bend; at eighteen inches from this, make another; at twelve inches, another; and again, at eighteen inches, another. Solder the extra six inches along the first side.

We have now a rectangular wire frame twelve inches long on two sides, and eighteen on the other two. Bend the other piece of wire in the same way, and solder as before. Now cut twenty pieces of wire, each ten and a half inches long; straighten them; then bend a quarter of an inch (in a vice) at each end, at right angles,  $\perp$ . Lay one of the rectangular frames on a table, and hold the other exactly ten inches above it. That is precisely the position in which they are to be fastened together, and this fastening is accomplished by soldering the twenty pieces, at intervals of two inches apart between the eighteen inch sides,—ten on each side. These upright wires take the place of wire cloth in other extractors. You can use wire cloth in this if you prefer. I like wires better. Now fasten the two pieces of flat bar iron to the middle of the twelve inch sides, by soldering, or by turning the ends of the bars over the wires and clinching them, one to the lower pair, and one to the upper pair.

To stiffen and prevent the sides from sagging, solder a wire to the lower corner of each end of the framework; pass it over the top bar, solder it there; pass it down to the opposite lower corner, and solder. Put the shaft through the two holes, and solder it to the two bars, in such a position that the lower bar will just clear the top of the tube in the bottom of the tub. Make a cross-bar of wood, two inches wide, and long enough to reach between the wooden handles of the tub, to which it is to be fastened. Bore a hole in the middle of this bar large enough to admit the shaft in the tube; put on the wooden cross-bar, and fasten it in place, with the shaft through the hole; insert your crank in the hole in the top of the shaft, and turn away.

The dimensions given, fit the standard Langstroth frame, eighteen inches long and ten inches deep. If your frame is shorter, make the eighteen inch sides enough shorter to accommodate it, and the twelve inch sides can be made correspondingly longer, which is an advantage, as the further the frames are hung from the shaft, the slower the required motion may be. If you intend to use the extractor extensively, it is undoubtedly best to use gearing instead of a crank, for, after some time, the rapid motion of the crank becomes tiresome. For my use the crank is sufficient. If your frame is much deeper than ten inches, you would require a tub more than fifteen inches deep. The top of this extractor can have a perfect cover. If you think you need one, put one on; but do not fasten it with hinges. Have it removable at pleasure. If desirable, you could use wood for the shaft and the two bars. You might also use a tub (a new one) without the zinc lining, or the lining without the tub. I like mine just as it is.

R. BICKFORD.

Seneca Falls, N. Y., Feb. 6, 1871.

[For the American Bee Journal.]

#### Reproductive Organs of the Queen Bee.

In these organs there is a difference between the impregnated and the unimpregnated queens, perceptible even by the naked eye. At least in one particular I have noticed a difference, of which I will here make mention, showing that the commonly accepted theory as to the "*modus operandi*" of how the queen can lay two kinds of eggs, drone and worker, is tenable.

Not being well acquainted with the anatomy of the bee or with anatomical terms, I will try to make myself understood independent of those terms.

Any one who has ever opened the abdomen of the queen bee, and examined the parts with ordinary minuteness, has no doubt discovered, in the region nearest the extremity, a small round something about the size of a mustard seed, in connection with certain other parts there found. In a quite young queen, or one unimpregnated, I have always found this little ball (as I will call it) in appearance transparent like clear water. In fertile or impregnated queens, I have always

found it in appearance the color of milk. I have examined quite a number, always with the same result. I am satisfied that *age* does not cause this difference, because in examining *drone-laying* queens of considerable age, I find this "ball" of the same clearness as in the queen just taken from the cell; and in young fertile queens I have found it to be of a milky color, the same as in older queens.

By a process in harmony with the structure of the queen bee and her instincts, she can deposit eggs in drone cells without their necessarily coming in direct contact with her fertilizing powers; consequently they will produce the same kind of bees (drones) as though she had never been impregnated. And in depositing her eggs in worker cells, they become so far fertilized as to produce workers (imperfectly developed female bees). Such seems to be the nature and instinct of the bee. Marvellous in our eyes are the works of God.

J. S. FLORY.

Fayetteville, West Va.

It is on these facts, first noticed and fully described and explained by Dzierzon, that the "Dzierzon theory" and the modern or scientific system of bee-culture are founded. The discovery shed a flood of light on what was "mystery" before. The existence of the spermatheca was previously known, but it was supposed to be designed to furnish the passing egg with a coating of glutinous matter to secure it in proper position on the base of the cell. Dzierzon's conjecture that its contents were seminal matter derived from the drone, met with strenuous opposition in various quarters, till Prof. Von Siebold settled the question by means of the microscope, showing the existence of spermatozoa in worker eggs, and their absence in drone eggs, and the identity of these spermatozoa with those found in the semen of drones, and in the spermatheca of the queen after fertilization.—[Ed.]

[For the American Bee Journal.]

#### Various Particulars.

MR. EDITOR:—It being over a year since I wrote to you and renewed my subscription, I will now try to do both, and ask you to forgive me for not doing it sooner. Remember that I intend to take the Journal as long as I keep bees, and that will be as long as I live; so, if the Journal is running, I shall be taking it.

I intend to write a little of all sorts for the Journal now. If you see fit to put it in, do so. To begin where I left off a year ago, I shall state how my bees wintered in 1869-70. I put some seventy stocks into winter quarters, in good condition so far as bees were concerned, but not well supplied with honey, for the previous season was poor in this part of Wisconsin, and very wet. Hence the bees came out weak in the spring. I lost fourteen stocks, which was no great loss after all, for I saved all the combs to put swarms in, and I had plenty of these in the summer of 1870—which, by the way, was the best honey

season I ever saw. Well, as I said, they came out poor, and I had of course to resort to feeding. There being not any fat ones among them to take frames from, I had to feed the poorest some other way. I purchased some sugar, dissolved it in water, and mixed some honey with it as long as I had any. Afterwards I fed it clear, using bee-feeders similar to those described by Mr. Langstroth. The bees increased rapidly and commenced swarming on the 13th of May. The way I managed through the swarming season is this: I cut my queens' wings in the spring when I overhauled the stocks to cut out some comb and introduce worker comb in its place. I keep my bee-yard seeded down to grass, and the grass cut short. I like this better than Novice's sawdust; anyway, it is not so liable to catch fire and burn up my bees. When a colony swarmed and the queen came out she crawled as far as she could on the grass, and of course I was there to assist her majesty. I generally put her in a queen cage till the swarm alights, and then put her with the bees. The first thing to be done is to secure the queen, that is when she starts to come out; and the next is to remove the old hive and substitute your new hive in its place, and when the bees commence to return put your queen on the bottom board, and your swarm is hived. Take your new swarm and place it where you like. Or if your bees alight on a tree, carry your queen there, and hive the swarm. That's the way I manage my bees. Where swarms are numerous I do not know any better way to do so, without trouble and vexation.

Well my bees kept on swarming last summer, until I had filled all the hives I had calculated for new swarms. In the first place I made several artificial swarms, so as to get a little the start of the bees; but it did not make much difference with them, for they got ready and swarmed within a week or two as quick as the others. So I hived a number of them together, uniting sometimes two and sometimes three of the swarms, taking away all the queens but one, and putting on surplus honey boxes at once—removing the honey-board and setting the boxes directly on the frames.

I increased my colonies from fifty old stocks to one hundred, and obtained two tons of surplus honey, all in boxes, except eight hundred (800) pounds taken out with the machine. The most taken from any one hive was one hundred and fifty (150) pounds.

I wish some one would communicate through the Journal how to keep the bees from swarming and throw their whole force into the surplus boxes, without queen-yard or queen-cages. I should be thankful to receive such knowledge. Another thing—I should be thankful to know how to keep my bees cool enough in my winter repository, in a warm spell such as often occurs in the winter. The room that I keep them in is ten feet by twenty-four, inside measure, with five ventilators overhead. One of these, six inches square, running up through the roof; another, one foot square, through the floor and sawdust; and one coming under the ground, four inches square, inside measure. With all these open in a warm still time, the bees get too

warm. If I should open the doors at night they would warm up in daytime, and I might oversleep and let daylight in and the bees would leave their winter quarters.

Eureka, Wis.

ALBERT POTTER.

[For the American Bee Journal.]

### Chloroforming Bees.

I cannot conceive why the use of chloroform should be proclaimed objectionable in taming or subduing bees, unless it is that, in applying it for that purpose, bee-keepers generally have not understood what quantity to use, and for what length of time. With me it has proved the very best of bee charms. You can render your bees merely drowsy and good natured, lay them fast asleep, or bring them to the snooze that knows no waking. It all depends on the quantity administered, and the time they remain exposed to the fumes of the chloroform. Chloroforming bees, as described Vol. V., page 142, of the Bee Journal, is chloroforming with a vengeance and sure death.

Since 1863, studying and adopting the plans laid down in the Patent Office Report (Agricultural Part, page 89), I substitute for the table, a bottom-board to suit the size of the hive to be chloroformed. A tin or wooden dish, ten or twelve inches square, is tightly fitted in this bottom-board, and I nail a three or four inch cleat at each end of the lower side of it, to raise it from the ground and keep it from warping. In the middle of this dish put the small plate to be covered by a funnel-shaped piece of wire-cloth, after it has received the *one-sixth part of an ounce* of chloroform, which is an ordinary teaspoonful, and enough I think for most hives when perfectly closed with cloths or blankets, to prevent escape of fumes. I set the hive to be chloroformed directly over the dish in the bottom-board, and in from ten to twenty minutes the bees will either be harmless or lay fast asleep in the dish below, according to the degree you wish to have them initiated into the mysteries of chloroform. But after being brought to the fresh air, they will soon awake and revive. For further particulars, see Patent Office Report for 1860.

If the object is to deprive the swarm of honey, without the visitings of its wrath, the most timid can thus obtain, with this fragrant anæsthetic, a well-flavored sweet article, and not an ill-scented, repulsive nauseous mess, ungrateful to the taste and unfit for man or bee, as is the case when using tobacco, puff-ball, sulphur, or any other smoke. Any hive, with or without movable combs, that has a movable bottom-board (and no hive should, in my opinion, have a stationary one) can easily be brought under the influence of chloroform. No trouble and no harm to the bees, applying the quantity during the time above specified. It will not poison the hive, the bees, or the honey.

I have thus united stocks, removed old queens, and the Salic law not being in practice or cus-



tom with the courteous creatures, I have introduced either strangers or young fertile princesses to fill the throne of Beedom, and performed in fact anything desired, without ever having had any bad results or discovering any deleterious effects from the use of chloroform to the bees, the hive, or the honey. When the hive is a movable comb one, the frames may be taken out, examined, and returned at leisure. It is perhaps true that the bees seem to remain for a day or two only, after the operation, under the soothing and calming effects of the chloroform, being less irascible, quite tame, subdued and tractable. Never fear, however, their little temper will soon return, and they will not feel the worse for it. I have no doubt that if the required number of fertile queens can be obtained and kept in readiness in the fall, say from the middle of September to the middle of October, before it begins to be too cold to operate, and there being then little or no brood to endanger, when the drones have made their exit, a whole apiary could thus be safely and expeditiously Italianized, and the whole household of the hive, drones and all, would be Ligurian the next spring following.

"These, gaily bright, their radiant scales unfold,  
Spangled with equal spots, and dropt with gold,  
These, the selected race, with grateful toil  
Shall duly yield the sweetness of their spoil."

VIRGIL GEORGE, IV.

The old queen usually lodging near the top of the hive, is often one of the last to fall, and can easily be found and removed. I never protract chloroforming beyond twenty minutes, by the watch. I then look for the old queen, and being removed, I keep her for contingencies in a wire cage. I now replace the hive on its stand in the yard. The swarm to have a new queen introduced to, or the swarms to be united, are then put and spread out in a box some two feet square and seven inches deep, confining the bees therein by covering it with a wire-cloth frame, meshed seven or eight to the inch. Immerse the queen to be introduced in honey, and being thrown among the bees in the box, she soon acquires the same chloroform perfume of the swarm she is given to. The free circulation of air in the box soon revives the bees, and they will clean the new queen and cluster together in the box, when they can be hived again on their stand in the yard. Swarms, to be united, are proceeded with in the same manner, hiving them in the hive in the yard, where intended to be wintered. This hiving is done by merely spreading a sheet or placing a large, wide board before the hive, raising the hive one inch in front, and shaking the bees out of the box, before the entrance of the hive. They will readily enter the hive, which is then lowered again tight to the bottom board. There is no further trouble, except perhaps the watching of robbers for a day or two, until the swarm is fully reorganized and returned to its former habits. I must state, however, that if it should happen that no queen could be found, I believe that the young royal lady to be introduced in the realm of beedom, being in the full strength and vigor of youth, would promptly master and overpower any competitor yet drowsy

from the lingering paralyzing effects of the chloroform, and the workers all too confused or too glad to think they are alive, that it is some time before they can muster any inspiration for fighting.

The foregoing detailed process is certainly preferable, in my humble opinion, to the one described, practised, and recommended by Mr. H. C. Barnard, and which is said to be friend Alley's plan. [See Amer. Bee Journal, Vol. V., page 256.] Think of it, putting the queen to be introduced in her cage, and laying it on the top of the frames, &c. Then blowing tobacco smoke into the entrance of the hive for three or four minutes. Now stop awhile, and resume blowing in smoke for five or ten minutes, or until the bees commence to fall down and crawl out of the hive. I have in former days practised some such things myself, and I have often wondered that any bees survived the operation, or could remain alive in a hive that must have been redolent after the process, and worse scented than the tobacco Parliament chamber of the father of Frederick the Great.

I do not intend by the foregoing to convey the idea that I would drive away entirely from the bee-yard, smoking or the use of a little smoke. For minor operations in handling and managing bees in the apiary, it is sometimes found very handy and accommodating, and especially so where chloroform cannot conveniently be used. But I must condemn the converting the hive into a smoking room, rendering the combs and the honey repulsive if not poisonous to the bees for a long time thereafter. For such wholesale purposes the use of chloroform is far preferable and wholesome, in this, that it subdues equally as well, but leaves no disgusting or offensive smell behind. The chloroforming should not be prolonged beyond twenty minutes, rather less than more; never be carried to the sweating point, when you will lose many bees. A little experience will soon teach you how far to proceed for the purpose intended. Within my experience, I cannot agree, however, with the Scotch experimenter, that all the bees leave the combs and fall helpless on the table. A great many may sometimes take refuge in the empty cells, to get away perhaps from the fumes. The larger the swarm, and the more the bees are spread out after the operation, the quicker they revive.

JOHN N. ROTTIERS.

Lafayetteville, N. Y., Feb. 1, 1871.

[For the American Bee Journal.]

### Arresting Absconding Swarms.

MR. EDITOR:—You cannot imagine how much I value your paper. In my boyhood, my father kept bees, and I then became so familiar with them that I have so little dread of stings as to neglect to a considerable extent the precautions laid down in the books, and have always been able to do as I pleased in handling bees.

I have never had a swarm to leave a hive and go off, without first alighting. My impression is that the old-fashioned practice of tanging pro-

ceeds from a correct idea; that is, that a swarm will always alight when thoroughly alarmed, so as to disconcert them. The past season I used a large mirror and stopped by that means a swarm, which I had hived a few days previously, and which started to go off. I ran after it, flashing the sun's rays among them most thoroughly—the mirror being fourteen by twenty inches square. I stopped them on the last tree in the vicinity, and in five minutes had them nicely lived. I have frequently stopped them by throwing water, chips, or dirt among them, when starting to leave; and once when passing overhead, as I was bringing corn home. But I failed once, last summer, with a swarm that had come out and alighted unobserved by me. The first I knew of it, it was taking wing from a tree near my apiary, and I think it must have waited for me over night, for it was quite early in the day for a swarm to come out and then leave. I did as in the other case, but the more I flashed the faster they went. I think it must have been an after-swarm with a young queen, as I found no signs of a swarm having left a hive that had not swarmed before, and found one that had swarmed previously, much more depopulated than it should have been.

By the way, are not swarms with young queens more capricious than first ones? Speaking of swarms leaving, I will give to the public a method which I have never had an opportunity of trying, but which was told to me many years ago by a very successful apiarian of my native place, in whom I had great confidence. He told me that by practising it in the presence of a superstitious neighbor, he got the name of a *wizard*. It was a case where the swarm left without alighting, and the neighbor attempted to follow it. If I remember rightly, he stopped the man, saying he would call the bees back. His method was simply to remove the old hive from the stand, and set in its place another as nearly like it as possible. His theory was that the swarm keeps up a communication with the old hive for some length of time, and the messengers, finding the old hive gone and a good vacant one in its place, would return to the swarm, and in bee language tell the queen that the coast was clear at home and they had better go back. I think he must have been in the practice of using bee-balm, as the use of it was common among bee-keepers there in those days. I have often thought I would try the plan, even if it should set the old stock back somewhat. Perhaps some bee-keeper may have an opportunity to test it and report.

H. HUDSON.

*Fenn's Mills, Mich.*

Every living thing, from man down to an ephemeral insect, pursues the bee to its destruction for the sake of the honey that is deposited in its cell or secreted in its honey-bag. To obtain that which the bee is carrying to its hive, numerous birds and insects are on the watch; and an incredible number of bees fall victims, in consequence, to their enemies.

[For the American Bee Journal.]

### House for Wintering Bees.—A Suggestion.

MR. EDITOR:—I see there are almost as many different plans for wintering bees as there are people who keep them. Some prefer a cellar, others a building constructed specially for the purpose. Some succeed well in burying them in clamps or in trenches; others again are successful in wintering them on their summer stands, with some peculiar arrangement or construction of hive. We also see almost every conceivable material used in the construction of those special repositories or hives. Thus, we have stone, brick, earth, boards, and tanbark or sawdust, concretes, adobe, gravel walls, &c., of the former, and boards, plank, calcined plaster, straw, corn-cobs, carpets, &c.; some with dead air space of from one-sixteenth of an inch to two inches; some wholly of paper, carpet, corn-cobs, &c.; others lined or covered with such materials. Now it is not the intention of the present article, to express an opinion as to which of the above enumerated plans is best. That must be determined by the location and the surroundings of the apiarian, or by the means or particular fancy and skill of the bee-keeper. But there are certain fundamental principles which must be observed in order to winter our bees successfully. We must have a suitable cluster of bees, with sufficient stores of honey within their reach, and with proper ventilation. I believe a swarm thus prepared will winter almost anywhere. I wish, however, to bring to the notice of my bee-keeping friends a new combination of materials for the construction of a building in which to winter bees, or to manipulate with them in the summer, to transfer in when other bees would rob if the operation were done out of doors; or you can build yourself a house, to live in if you please. The articles referred to are nothing more than common stove wood, sawed to the length of the desired thickness of your walls, split up about two inches square, and laid up in lime mortar. Any person with skill enough to make mortar and pile wood, can lay up the walls of such a building. He might require the assistance of a carpenter, to make the window and door frames, to lay the floors, and construct the roof. An operative mason may also be needed to plaster the walls inside and out, and give it an artistic finish to your liking. But when it is done, the walls will not *sweat* in damp weather like brick or stone. At least I am told such is the case with buildings so constructed in this vicinity. We have a large two-story dwelling-house, with a cellar under the whole, in the village of Deerfield, Lenawee county, Michigan; also, a dwelling-house in the village of Petersburg, Monroe county, Michigan, constructed on the above plan; and they are giving good satisfaction. The foundation and cellar walls are plastered with water lime. Any person who understands building concrete walls, will readily understand how to construct a building on the above plan. You can plumb your corners, set a wide board on edge from one corner to another, and pile your wood right against it; and by putting the mor-

tar on each end of the wood and none in the middle, you can make what is called a "hollow wall."

I do not claim that the above idea originated with me, but it was through my influence that the aforesaid buildings were erected; and they are giving good satisfaction. I have already written a longer article than I intended, and will close.

JOHN T. ROSE.

Petersburg, Mich.

[For the American Bee Journal.]

### The Bee Palace.

MR. EDITOR:—Did you ever see the Bee Palace? It is patented, of course—there is no hive but is. We are not going to describe it in detail, being satisfied that none of the readers of the Journal would want it, for the reason that it does not infringe on the Langstroth patent. Don't understand us to say that we think the readers of the Journal would infringe on the Langstroth patent, but that they will use no other than a movable comb hive.

The Bee Palace is not a frame hive. It was introduced into this section of country two years ago, by a Mr. Black. If he had attached *leg* to the Black, it would have been most appropriate. The general shape of the Palace is similar to a small church steeple inverted, with legs to it.

We were favored with a call from this worthy Black-*leg* with a load of his Bee Palaces. He set one of them on the ground, and discoursed about as follows:

"This is the best hive in America. With it you can manage bees with less trouble and expense, and more profit, than with any other hive. Here is the swarming-box. All you have to do is to put this on the top of the hive, and when the bees get ready to swarm, they will go up in the box. You can then take them off and hive them. In this way you make all your own swarms. No watching bees, or any danger of losing swarms. There is no other hive from which artificial swarms can be made so easily. Here, too, are the surplus honey-boxes, on the sides of the hive. When one set is filled, you can take them off and put on others. The side of the hive is the best place for honey-boxes. Bees will store twice as much honey at the sides as they will at any other place. Here, also, is the miller-trap below—sure to catch every miller that comes round. The hive is warranted to be moth-proof, or no pay. A farm right with our hive is only forty dollars; with two hives at forty-five dollars."

We did not appear very anxious to invest. He finally proposed to give us one, if we would put bees in it and try it; but as we had no bees we wanted to kill, he loaded on his Bee Palace and drove off, remarking that he "never could sell to persons using the movable frame hive." He did sell to one of my neighbors, however. The swarming arrangement just suited this man, as it was always a great deal of bother to watch the bees. He took two Palaces at forty-

five dollars, put his bees in them, and has had his swarming-boxes on for two years; and if he don't get to heaven before he gets a swarm in that way, we think he is a subject for prayers. Another man was taken with the moth-trap. That was just what he wanted. But you see he was a little sharper than the first purchaser; he was not going to pay till he tested it. So Mr. Black made out his warrant and the farmer his note, and they exchanged papers. The result was that after Mr. Black had canvassed the county round about, he sold all the notes he had taken, and left for parts unknown. So the first thing Mr. Farmer knew he was sued, and to his great surprise found that the warrant is no off-set to the note in the hands of a third party. So he had the forty dollars with interest and costs to pay. This man subsequently bought the Twining humbug and six secrets (ventilated in the Bee Journal last December). We asked him, why, having been bit once, he would buy another humbug. "Well," he said, "it was so much cheaper, *only* ten dollars." There is no rule by which to govern a fool.

BEEIST.

Lawrence, Kansas, April, 1871.

[For the American Bee Journal.]

### Two Queens in one Hive.

I occasionally see an account of two queens being found in one hive, but in each case the circumstances seem to be very different. In my short experience in bee-keeping I have had two such cases, which differed much from each other and from any that I have seen reported. The first was like this: A strong colony of black bees made extensive preparations for swarming in June, 1870, by starting a large number of young queens. I usually do my own swarming, but thought, in this case, I would let the bees have their own way and swarm naturally. But Nature "to all things sets her limits fit," and here it did not seem natural for them to swarm. After waiting eight days from the sealing of the queen cells, I made an examination, and to my surprise found the old and two young queens at liberty on the combs. That evening I heard piping, the same as for after-swarms, which continued for five days. Then it ceased, and eleven dead queens were thrown out of the hive. It was easy to account for their not swarming; but singular that they should preserve hatched queens so long, in the presence of an old laying queen.

The other case, again, was under entirely different circumstances. About the first of last August, I took a queen (Italian) from a nucleus swarm, giving it two eleven days old twin cells, that were built so close together that I could not separate them without injuring one or the other. The fourth day after I examined the nucleus and found both queens hatched, and saw them side by side, apparently as friendly as two workers, without any inclination to fight. I was then called from home, was absent a week, and on my return examined the nucleus and found *both*



queens laying eggs. I then took the comb on which the two were at work to my house, to show them to my wife that I had got something that would beat Quinby, Langstroth, and all the rest of them. While we were looking at them, the two queens came together, embraced each other in the most friendly manner, then turned away, and each laid an egg within an inch of where they met. Money would not have bought either of those queens, at that time; but what was my chagrin the next morning to find one of them just expiring in front of the hive. This leads me to believe that queens are not such bitter enemies of each other, as we are told they are. The dying queen had evidently not been stung. I have frequently tried to witness the battle of queens, but have never yet seen the sight. I have often seen the workers destroy a queen by strangulation, while another queen had her liberty in the same hive; and in one instance there was not a half gill of workers present.

E. BENJAMIN.

Rockford, Iowa.

[For the American Bee Journal.]

## Foulbrood.

MR. EDITOR:—We find in almost every number of the Journal an article upon this deplorable malady, and also different ways of getting rid of it.

As I have had some experience with this disease, of course I have been interested in these articles.

I presume my experience with it has been more limited than many, from the fact that I have never had a very extensive apiary. But, to say the least, I do not care to extend my observations, as I am entirely free from it now.

My attention was first arrested about six years ago. In the spring I bought some stocks from a section about fifty miles away, and transferred them to movable comb hives. In the fall following, while examining them preparatory for winter quarters, I discovered a few scattering cells containing sealed dead brood. It occurred to me at once that this might be foulbrood. The next season it increased. I commenced to cut out the diseased brood, but soon found it was of no avail. I began to search for a remedy in what *bee literature* I had, but could not find anything which looked effectual.

I kept all my stock until another season, and became convinced it was of no use to try to cure it, as all the stock of my home apiary were diseased, more or less.

In the fall I destroyed nearly all of the bees, took the honey from the combs with my honey slinger, and made the combs into wax, and burnt up all the frames.

Some of the hives I scalded thoroughly with hot water; others I held over a blazing fire until the propolis melted.

I have used some of these hives, but have never discovered anything of the disease. Some of the bees, instead of destroying, I put into a box and kept them several days, supplying them

with dissolved sugar, and then united them with some healthy stocks; and have not discovered any unhealthfulness in consequence. I removed a queen from a diseased stock to a healthy nucleus, and discovered in a short time that I carried the disease with her.

I think that unless the disease is in too bad a state or form, that the bees might be saved by treating them as above, and placing them in a clean hive; but I think it would be a good deal of trouble to cleanse the comb so it would be safe to use.

I would advise every one who discovers this enemy in any stock, to destroy the comb and honey at once—unless the honey can be scalded before the bees can get to it—and perhaps the bees too, and thoroughly cleanse the hives before using.

C. B. BIGLOW.

Perkinsville, Vt., May, 1871.

[For the American Bee Journal.]

## A Transferred Colony Deserts its Hive.

A number of years ago I had a colony of black bees, which I concluded to transfer into a movable comb hive. It was a good colony, with an average amount of brood bees and honey. Drumming out the swarm first, I broke up the box, cut out the combs, and fitted into frames as well as I knew how. To fasten these combs I used linen wrapping twine. Everything being ready for the bees, I put them in, and set the hive directly on its old location. In the evening of that day I found the bees very uneasy and dissatisfied. On listening at the side of the hive, I heard them making a singular grinding noise. Next morning I examined that stock, and found the bees in the same condition. I then pulled out some of the frames and found that they were trying to bite off that twine, though their efforts seemed to be fruitless. A small number of the bees got portions of the twine in their mandibles, without being able to rid themselves of it again, and were dead—having probably starved. This state of things continued for two days. I could not remove the twine, as the combs were not yet properly fastened. In the forenoon of the third day after transferring the bees they swarmed out. I hived them again in the same hive, but next day they swarmed out again and joined another stock. There was no doubt in my mind that the fruitless attempts of the bees to remove the twine had caused the desertion of the hive. Now, and ever since that time, I use thin and narrow slats—one-sixteenth of an inch thick and about one-fourth of an inch wide, with which I fasten the combs into frames when transferring—placing them over the pieces of comb and nailing them to the frames. No transferred colonies, with combs thus secured, have since deserted their hives.

A. GRIMM.

Jefferson, Wis.

Man can accommodate himself to every variety of diet, and thrive on all. The bee, alone, never changes its food.

## THE AMERICAN BEE JOURNAL.

Washington, June, 1871.

Want of room compels us to omit a number of advertisements this month. The reader will understand that they are *not* withdrawn.

We again caution bee-keepers against suffering themselves to be *blackmailed* by parties offering to sell rights or demanding pay or damages, under pretext of the Clark patent, for the use of the triangular comb-guides, or any similar device for securing straight combs. The Clark patent was improperly granted, is utterly invalid, the decision of the U. S. Court in its favor was fraudulently obtained, and those exacting "royalty" for the guides are guilty of procuring money under false pretences. Clark or his assignee will never institute and prosecute suit against any one resolved to resist the demand, as that would bring the matter again within purview of the Courts.

Mr. D. L. Adair, of Hawesville, (Ky.,) claims to have a patent for a bee-feeder substantially similar to the one described in the April number of the Journal, as the invention of Mr. Hershey, of Mountjoy, Pa.

We inadvertently omitted to say in our last issue that Mr. Gravenhorst, though not making a business of raising Italian queens for sale, is willing to serve the bee-keepers of this country by procuring for them pure Italian queens from Dzierzon's apiary, at customary rates; or will send queens of his own raising, if desired, at four dollars each, in gold. He could not, of course, insure safe transportation by steamer, but would use every endeavor to have the queens sent and reach their destination alive and in good condition. Egyptian queen bees, also, would be procured from the apiary of F. W. Vogel, at ten dollars each, and forwarded with despatch. Mr. G.'s address is C. F. H. GRAVENHORST, Kleiner Exerzierplatz 8, Braunschweig, Germany.

We have received letters frequently of late from persons whose minds seem exercised on the hive question by an anxious desire to give "honor to whom honor" is due, though they have been led to imagine that Huber, Munn, Debeauvoys, or somebody else, is entitled to the credit of inventing the movable comb-hive. To such inquirers we would say that we intend to take an early opportunity to give an account of the inventions of the parties named, with accurate cuts and illustrations. Meantime, we beg to assure them that none of the devices and contrivances referred to are patented, but are public property, available for practical ends by anybody who chooses to use them. Let any one who desires make an exact and perfect imitation of any or of

all of them, and introduce them in his apiary for trial, without the least apprehension of infringing anybody's rights. For economical and prudential considerations, however, we would suggest that he make *only one* of each kind; and we will guarantee that, after subjecting them to a fair test, he will—*never* desire to make or use a second.

If, after drumming out a swarm, it is found that the queen is not among the bees, and the number of the latter is sufficient for a good colony, place the driven swarm where the parent hive stood, and remove the latter to a new location; supply the swarm at once with eggs and brood to raise a queen; and if an advanced maturing queen cell is available, insert it on the second or third day.

## CORRESPONDENCE OF THE BEE JOURNAL.

TIFFIN, OHIO, April, 17.—There is quite a demand for ring-tailed hogs in this nook of the woods. It is proposed to train them to walk up a few steps and hitch their tails to the suspended hooks, and then feed as per patent—thereby saving time in hooking or tying the tails three times a day, every day. There is no telling to what extent a hog can be educated, some having, as is well known, been taught to play cards, and tell the time of day by the dial of a watch. Some say bees cannot be educated. I say they can, and to have them store honey in the side frames takes training. Yet the life of the bee is too short for much to be done in that line in one generation, for like Paddy's horse, which when once he got used to do without eating, took a notion to die, so the best taught bees are apt to die soonest.

Last summer was the best honey season I ever saw. I won't say how much honey I took from some of my best colonies, for fear of not being believed by old foggy bee-keepers. Bees are doing remarkably well at present. Success to the Journal. J. J. FISHER.

BRICKSBURG, N. J., April 17.—We have had a much more quiet and favorable spring here than one year ago. The means I indicated for spring management here, have been of much benefit; as I will describe in future. We had fine, warm summerlike days in succession, commencing April 7th, which gave quite a start. I have transferred most of my bees to nucleus hives, putting as many of such hives together as may be necessary for the convenience of the swarm. This will render transportation cheaper and safer. J. L. HUBBARD.

AMESBURY, MASS., April 20.—My bees are in fine condition, and the hives are rapidly filling up with brood. I hope to report early swarms, and a good yield of surplus honey. A. GREEN.

EDGEFIELD JUNCTION, TENN., April 20.—I sent you per mail this day, a honey and pollen producing plant, or weed, of great value to the bee-keeper, which I wish you to name. It came spontaneous last fall, just after the breaking up of a meadow. It lived through the winter, bloomed in the latter part of February or early part of March, and has been in continuous bloom since. The bees have worked on it every fine day, for more than six weeks. I have a field of about twenty acres literally yellow with it. T. B. HAMLIN.

Dr. Parry, the botanist of the Department of

Agriculture, informs us that the plant above stated, sent to us by Dr. Hamlin, is a rare species—*Vesicaria Lescurii*. It is mentioned in Gray's Botany as found by Leo Lesquereaux on the hills near Nashville, Tennessee, and to be sought for in southern Kentucky. Blooming early, long and profusely, it may prove to be a valuable bee plant.

CHRISTIANSBURG, VA., April 21.—The prospect for honey is fine here this spring. Apple trees are in full bloom; and the weather is warm and dry, giving the bees a fine chance. Mine are breeding very rapidly, and I hope to give you a good account of them as the season progresses. I enclose a plant for name, which is spreading all over this neighborhood rapidly. It commences blossoming early in February, and continues up to this time. My bees forsook the rye-meal in a few days after this came into bloom. J. R. GARDNER.

The plant accompanying the foregoing note, is the "Whitlow Grass"—*Draba verna*, Gray. It is found in all the Atlantic States, though not common. It is annual, and probably valuable only as furnishing pollen early for bees.

WORTHINGTON, PA., April 23.—Weather chilly. Fruit nearly all killed from frosts. Bees not faring well this spring. Have just concluded a series of thirteen articles on apiculture, in our county paper; and I think, from communications received, that an interest has been awakened in the right direction. J. W. BARCLAY.

WEST EDMISTON, N. Y., April 24.—My stock of bees, in the spring of 1870, consisted of seven colonies, in a fair average condition for bees in this section that spring. By artificial means I increased them to fifteen swarms. With the use of a honey emptying machine I took five hundred and thirty-five pounds of pure honey from them, besides obtaining two hundred pounds of surplus in boxes. This made a sum total of seven hundred and thirty-five (735) pounds, or one hundred and five pounds to the original swarm. Their net average weight October 1st, was forty pounds. They have wintered splendidly, both in chamber and on summer stands, and are in fine condition. I am well pleased with my experience in beekeeping, and consider my success favorable for a new beginner in apiculture. H. LONGWORTHY.

TUSCOLA, ILLS., May 1.—In the spring of 1870, I started with eight stands of bees, and have at present fifteen—having lost three last winter through carelessness; but have found that it costs something to learn certain facts in the bee line. Last season, was too dry here for bees; they hardly gathered enough to keep them. It has been rather cool till the 29th of April, when we had a good warm rain, and should the weather stay warm the bees will do well. That patent for feeding hogs is a pretty good illustration of some patent bee hives—not that I would hint that beemen would swindle one another. We all know that men selling patent rights are, like horse jockies, too honest to cheat anybody. I, at least, have not been swindled yet, as I let patent vendors pass along on their way rejoicing or grumbling, as they may choose to term it. I use the Langstroth patent, which can't be beat in the present age. I paid for the right to use it, and no man ought to use it without paying for it. H. C. DUKBOROW.

SAXON, ILLS., May 8.—Bees through this section are very strong for this time in the year. They commenced gathering pollen about the 10th of March. Weather cool, with frost the last two nights. Apple trees nearly out of bloom. J. A. MAXFIELD.

[For the American Bee Journal.]

### Dysentery.

DEAR JOURNAL:—I am writing to-day on the 15th of February. Any day now, may be the last day of confinement for my bees in their winter jail. Thus far they have needed extra care. As I told you, I had forty colonies, nearly half of them in bee gums, and the other half in frame hives, Gallup form. These I have emptied twice often during summer, so that all their honey was gathered during August and September. The bee gums are all right—all in position of rank and file, so that the bees in not one of them stir. The others have many dead bees, and although the honey-boards are laid on them only half-way, yet the bees cluster on them like swarms. This state of things has been so for the last three days. Every night I gave them more ventilation, but the more I gave them the more noisy they are, and dysentery has fairly set in. To-night I shall open the doors and take off the honey-boards altogether. My bee gums have not half so much ventilation, there being only a square hole, six by five inches, with bars to fasten the combs. Does not this look as if dysentery is the result of the quality of the honey, and that some honey has a greater degree of heat than others? Although my bee house smells very unpleasantly, I do not see that the bees are much affected. They appear lively and active, as in midsummer; yet they soil their combs with feces, and the result will be a desertion of hives in the spring.

I am glad to see friend Gallup gives us something more about the Davis queen nursery. Let a good thing be encouraged, by all means. The queen nursery may be regarded as the third great invention in bee culture. There must be some misunderstanding between Gallup and Nesbit. They differ widely. I wish our friend Nesbit would give us the assurance that his queen nursery is identical with that of Dr. Davis. If it is not, he would do well to style it *my* queen nursery, instead of simply the nursery. This would avert misunderstanding and unnecessary explanations.

I have heard much about purity of offspring in bee culture, and discussions on this subject are not wanting, and conflicting notions are still entertained. Methinks there is no difficulty in ascertaining pure blood. When I intend to compare some bees, I take a piece of comb with honey in it, go to some hive and hold the comb several minutes before the fly-hole, or until eight or ten bees collect on it. Then I carry them thus on the comb into a room in my house, and let them fly to a window on which the sun is shining in full force. The pure bee is clear and transparent, with a slender tapering body, and only a small tip of black; while the impure are of a muddy appearance on the window. You can discover the slightest adulteration.

If any one knows of any evil resulting from using maple sap for spring feeding of bees, say half a gill every night, let his voice be heard in Israel.

J. DUFFILER.

Rousseau, Wis.



[For the American Bee Journal.]

**White Clover, Strong Stocks, Experiments, etc.**

During an experience of twenty years in keeping bees in my location, I have seldom got surplus honey from any other source than white clover. Of basswood there is very little here. In some seasons the clover failed to bloom; in others it bloomed freely from the latter part of May or the first of June until late in the fall, but yielded very little honey. In most seasons, however, it yielded honey abundantly for eighteen or twenty days, never longer. In such seasons it usually bloomed some time before and after the period of abundant yield, but was very little visited by the bees. I have tried various methods to keep my stocks strong to work on the clover. Four years ago, I tried the following experiment, embracing eight strong stocks of black bees. Four of these I permitted to swarm, and as soon as a stock had swarmed, I exchanged stands with the next strongest stock, and removed all the queen cells but one, on the sixth day; and continued to do so till four stocks had swarmed, and the eight thus operated upon. Result: neither of the four stocks from which the bees were drawn, attempt to swarm, and each stored about forty pounds of surplus honey. Two of the stocks, thus reinforced after they had swarmed, continued to work as if nothing had happened; did not swarm again; and also stored about forty pounds of surplus honey, each—the same as the other four. The remaining two stocks were bent on swarming again. Both together did not store over ten pounds of surplus honey, and did very little inside. Both swarmed soon after their queens began to lay—the one on the 17th and the other on the 18th day after they had swarmed the first time. Neither of them had started any queen cells, but each raised a good queen afterwards. Since I have been using the Gallup hive, I have done very differently. But, more anon.

HENRY CRIST.

Lake, Stark Co., Ohio, April 8, 1871.

[For the American Bee Journal.]

**Frames to suit Honey Extractors.**

MR. EDITOR:—As the size and shape of frames for honey-extractors is a subject somewhat new, we will give you an opinion based upon our experience. We prefer the bottom or brood frames deep, from twelve to fourteen inches; and the top frames for the honey extractor shallow, about seven inches;—for the following reasons: we then seldom have any brood to handle, and shallow frames of honey are not so liable to be broken, while being handled in the machine.

These upper frames we place in a box which rests upon the hive the same as the cover for boxes. (We speak of the "Thomas hive," and this has a flat cover which fits closely on the box, leaving a chamber one-fourth of an inch between the frames and cover.) If we wish to examine the brood department, we take off the box,

cover, and frames at once. If we only wish the honey frames, we remove the cover, take out the frames, and brush the bees in front of the hive.

Our hives are near each other, and the ground is kept clean by an occasional hoeing. We would be pleased to learn more from our friend, J. Bogart, who has about 160 colonies in good condition and well managed, as we found by the time he had shown us his apiary. He is a practical "bee-man." If he will favor us with another call, he will find "Bachelor's Hall" renovated, and occupied by some of the fairer sex.

We prefer to put our slung honey in kegs or barrels for home use or shipping, and let the party shipped to put it in one or two quart glass jars, or sell by the pound, as will suit purchasers. The scales can be placed below the faucet, which can be closed when the required amount is drawn; the latter we find very convenient.

We are asked so frequently to give a description of our honey slinger, that we have concluded to give it in the BEE JOURNAL, once for all. We first made one, using a *tin can*, as recommended in the Journal, Vol. V., pages 87 and 169. We found the can liable to be indented and become springy, and requiring, if the combs were not of even weight, one man to hold the machine still. We tried again, and got an oak tub made 27 inches high; bottom diameter 25 inches, top diameter 22 inches; four hoops, the bottom one being set low enough to allow a faucet placed above it, so as to draw off all the honey. Two opposite staves should be allowed one inch or more above the top of the tub, which will hold the cover in place. We made the frame and shaft similar to those described in Vol. V., No. 4, by T. C. Hill. The cover is made of two pieces, on one of which is the gearing (we use fanning mill gearing), while the other is raised to put in the combs. We occupy only space enough to show the difference between ours and others previously mentioned.

We would be pleased to learn the results of wintering bees in a cellar, with stove-pipe ventilation.

PALMER BROS.

New Boston, Ill.

[For the American Bee Journal.]

**Wire Gauze, and Introducing Queens.**

On page 228 of the April number of the Journal, in an article headed "Wintering Bees," D. P. Lane hits Gallup a dab about the wire cloth. From his own showing, providing he has not given his bees that purifying flight in February, where would they have been now? I have a few questions to ask Mr. Lane. I set my bees in the cellar the first week in December, and took them out the first week in April; and in all that time they were scarcely looked at. In fact, I was away from home, attending conventions, eight weeks during that time. I used no wire cloth, and do not think it necessary. When I once place my bees in the cellar, they are not taken out till spring is open. I think this "taking out" and "returning" unnecessary; and his bees cannot possibly be in better condition than mine.

are. It is true I lost two stocks out of thirty-six, but it was from another cause than the want of wire cloth. In the remainder of the stock, the loss did not average over twenty bees per stock. If Mr. Adam Grimm had to take out the whole of his stock of bees and return them again, even once, each winter, it would be quite a task. Now, friend Lane, answer candidly:—"Why add the expense of wire cloth, if it is not necessary?" and it certainly is not; for I have, for years, wintered bees successfully without it. Still, I have not the least objection to other parties using it, if they wish. But I think it a great deal better to teach others how to ventilate their hives properly and have them winter successfully; because it is a fixed fact that if bees are not properly ventilated, even with the wire cloth, they will almost certainly perish before spring.

Tyro, evidently, has had but very little experience with hybrid queens. His queen, no doubt, was a hybrid of the worst stripe; and, allowing me to be judge, the mother of said queen was a hybrid also. I never could succeed in raising a pure queen from an impure mother; but one of our noted queen breeders claims, in a private letter, that he can do it. I should like to see the tools he does it with.

We see that our friend Adam Grimm went into the novel process of making artificial colonies out of old workers as much as possible, to introduce new queens to. As he is an old hand, he has a perfect right to do so; but the new beginner, if he wishes to succeed, should endeavor to make artificial swarms consisting of young bees only, to introduce strange queens to. For example, take the frame containing the old queen out, and place it in a new hive; set the new hive on the old stand, and remove the old hive to a new location. In twenty-four hours, providing the weather is right, all the old bees will have left the new location, and we can introduce a new queen successfully with almost any ceremony; nay, we have repeatedly introduced them, in such cases, without any ceremony whatever. Understand, we do not recommend this method exclusively, but we give it for illustration merely. Almost any method will answer, if we first provide a colony with all young bees; we are then certain to introduce a queen successfully. We do not say that it will never fail; but we do say that we have never failed under these circumstances. With old workers, they frequently apparently accept the queens, and then supersede them in from eight to twelve days.

Orchard, Iowa.

E. GALLUP.

[For the American Bee Journal.]

#### A New Fumigator.

MR. EDITOR:—As the season for active operations in the apiary is approaching, perhaps some of your readers may feel interested in the description of a new fumigator, which suits me better than any heretofore described in the Bee Journal.

In few words it may be described as a box six

inches long, by two wide and two deep, with a hole in each end and a wire cage an inch in diameter running lengthwise through the centre of the box, to hold a roll of cotton rags, a piece of punk, or a "buffalo chip." Now for particulars:

The ends of the box are made of pieces of pine, two inches square and three and a half inches long, with a quarter inch hole bored centrally lengthwise. One end of each piece is tapered—one being for a mouth-piece, the other for a nozzle. The sides are of  $\frac{3}{4}$  stuff, 2 by  $7\frac{1}{2}$  inches. The bottom and cover are  $2\frac{1}{2}$  inches by  $7\frac{1}{2}$ . The cover to be well fitted, hung with wire hinges, and well battered on the outside to prevent warping. Before putting the box together, punch a circle of six holes,  $\frac{1}{2}$  inch deep, on the inside of the end pieces around the central hole and half an inch from it, to receive the ends of six wires  $6\frac{1}{4}$  inches long, which form the wire cage before referred to, for holding the rag, punk or "chip."

A small spring, placed in a slot or mortice on the top of one of the end pieces, throws up the cover half an inch to admit air when the instrument is not in use. The act of picking it up closes the cover.

Should a longer nozzle be desired, a piece of elder from which the pith has been punched, inserted in a half inch hole in the nozzle, answers an excellent purpose. Mine is nearly a foot long, and is all the better for being crooked.

One thing more. Has any of your readers, as I have many a time, wished to get his fumigator to his mouth when he had his bee hat on? If so, he may be interested in my arrangement for facilitating that operation. Make a hole in your hat opposite your mouth,  $1\frac{1}{2}$  inches square. Perpendicularly over this, fasten two pieces of gum elastic ribbon, two inches long and  $\frac{3}{4}$  of an inch wide. Put two more similar pieces across horizontally, fastening at the ends, and the thing is done. The mouth-piece of your fumigator can be pushed at pleasure through this elastic ribbon, making a tight fit always, and closing when the instrument is withdrawn.

If any one should wish to refer to this, to prevent circumlocution, I would suggest that they call it *Bartlett's Right-angular, Gum elastic, Self-closing Fumigator Port-hole for Bee Hats!* N. B. No patent applied for.

MICHAEL W. BARTLETT.

West Newbury, Mass., April 18, 1871.

[For the American Bee Journal.]

#### A Question for Solution.

A and B buy 400 hives for \$400, each paying \$200. When they came to divide them, A said to B, I am willing to pay fifty cents per hive more than you, if you give me the choice of the hives. They so agreed to divide them. How many did each get; and how much per hive did each pay?

JOHN B. OVERTON.

Lexington, Ky., March 25, 1871.

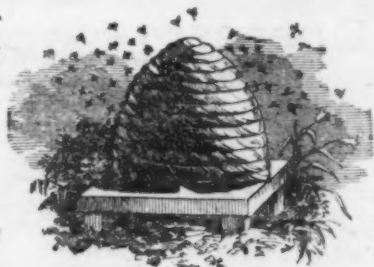
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JULY, 1870.

EDITED

BY

SAMUEL WAGNER.



PUBLISHED

MONTHLY,

WASHINGTON, D. C.

# AMERICAN BEE JOURNAL

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## BREEDER OF Pure Italian Queens

I have some two hundred stocks of bees and have been breeding queens for the last ten years. I am willing to compare with any one in America. My prices will be as low as those of any reliable breeder; and for responsibility, and ability as a breeder, I would refer to R. C. Otis, Esq., Kenosha, Wisconsin. I am also owner of L. L. Langstroth's Patent Bee Hive, for Iowa.

Send for circulars.

**W. H. FURMAN,**  
Cedar Rapids, Iowa.

May, 1870—3ts.



## ITALIAN QUEEN BEES.

I will sell Italian Queen Bees, the present season, at the following prices:

For one queen sent in June, by mail, \$2.50.

After July 1st, three (3) for \$7.00.

All queens are warranted pure and to be PROLIFIC. When proved otherwise, the money will be refunded, or other queens sent.

Safe arrival, by mail or express, guaranteed; and satisfaction given in all cases.

This is the ninth (9th) year that I have reared and sold Italian queen bees, and I can rear them at lower prices than any other man.

The only recommendation that I will offer is the following: I have already orders on my books for nearly four hundred (400) queens, and two-thirds of this number are ordered by customers to whom I sold queens last summer.

Send stamp for circular.

Address,

**H. ALLEY,**  
Wenham, Essex County, Mass.

May, 1870—tf.

## ITALIAN QUEEN BEES.

A limited number, of UNDOUBTED PURITY, for those ordering first.

Send for circular and price list for 1870.

**L. L. LANGSTROTH & SON,**  
Oxford, Butler County, Ohio.

May, 1870—tf.

## ITALIAN QUEEN BEES.

My customers are hereby reminded that I have removed from Walpole, New Hampshire, to this place, where I shall continue to raise Italian queen bees, from choice stocks, at moderate prices. Spring commences very early here, giving me an advantage of several weeks over my former location. I send queens by mail, having sent hundreds in that way. Satisfaction given.


For circulars, address

**J. L. HUBBARD,**  
BRICKSBURG, NEW JERSEY.

Feb. 1870—6ms.

## REMITTANCES RECEIVED.

S. Williamson, \$2; J. C. Deem, \$2; W. M. Heaton, \$2; W. J. Cone, \$2; G. W. Fanton, \$2; J. Nice, \$2; R. O'Connor, \$2; C. B. Lusby, \$2; M. West, \$3; R. C. Otis, \$1.75; J. P. Manning, \$2; W. H. Kirk, \$2; E. C. Reams, \$1; A. W. Lundy, \$2; Dr. E. P. Abbe, \$2; D. M. Worthington, \$2; J. A. Maxfield, \$2; S. J. Freeborn, \$2; Miss L. McBride, \$2; H. Hudson, \$2; G. W. Gamble, \$2; G. Ayres, \$2; Dr. H. O. Bolles, \$2; C. Carpenter, \$2; A. Barnard, \$2; D. B. Reavis, \$2; J. Scott, \$2; L. N. Good, \$2; A. J. Lobdell, \$2.20; R. Bickford, \$2; J. P. Crooke, \$2; Dr. S. Ruff, \$1; R. M. Hindman, \$2; J. W. Conklin, \$2; J. E. Pond, Jr., \$2; E. E. Porter, \$2; D. Blinn, \$2; G. Fortune, \$1; S. W. Loud, \$1; J. L. Peabody, \$1; J. W. Fisher, \$2; J. E. Sargent, \$4; C. Wurster, \$2; P. S. Van Rensselaer, \$6; W. M. Montgomery, \$2; W. Rowley, \$1; Mrs. W. Harris, \$2; J. S. Thompson, \$2; T. Brooks, \$2; V. 1. Riley, 2; L. Selby, \$2; P. H. Benedict, \$2; Dr. J. W. Hunter, \$2; N. Vogeler, \$2; George Kropp, \$2; J. R. T. Hollocher, \$2; T. H. B. Woody, \$2; B. R. Hopkins, \$2; Dr. C. C. Miller, \$2; F. E. Ray, \$2; L. C. Francis, \$2; J. W. Treadwell, \$2; W. McGhan, \$1; Miss E. Farmer, \$1; H. Smith, \$2; S. Mather, \$2; J. B. Walkley, \$2; A. Dunlap, \$2; J. P. Moore, \$2; S. King, \$2; S. H. King, \$2; J. A. Dillin, \$2; H. Nesbit, \$2.50; C. H. Hoyt, \$2; S. Boalt, \$2; J. F. Love, \$2; S. F. Reynolds, \$2.

 Now is a good time to subscribe for the **AMERICAN BEE JOURNAL**, to renew subscriptions, and to *pay arrearages*. Remember the *name* and *beware of counterfeits*! The next, or July, number begins a *new volume*, which we intend shall surpass all its predecessors in every valuable quality. The next good service you can render the **JOURNAL**, after subscribing for it, is to recommend it to your bee-keeping friends.

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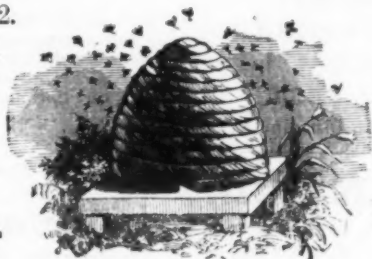
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SAMUEL WAGNER.



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# AMERICAN BEE JOURNAL

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## ITALIAN QUEENS.

IMPORTED AND HOMEBRED.

Send for circular,

E. J. PECK,

June, 1871.—3ms.

Lincoln, N. J.

## HONEY WANTED.

A few tons old crop at once, box, broken or extracted. Also, any quantity of new crop, as soon as can be shipped.

C. O. PERRINE,

Chicago, Ill., or

Philadelphia, Pa.

June, 1871.

## BEE-KEEPERS.

And persons interested in bee culture, should send for our Illustrated Circular of HONEY EXTRACTOR, containing Testimonials from most prominent Bee-keepers in the country.

All letters of inquiry, requests, circulars, &c., should be addressed to

J. L. PEABODY & CO.,

Virden,

Macoupin Co., Illinois.

Who will attend to the wholesale and retail trade as heretofore.

MACHINES will also be kept for sale at the regular retail price, at the following places:

B. H. STARR & Co., 115 Ontario street, Cleveland, Ohio.

J. L. PEABODY & Co., New Brunswick, N. J.

H. ALLEY, Wenham, Mass.

LYNDE & HOUGH, San Francisco, California.

May, 1871.—tf.

## ITALIAN BEES.

Full colonies of pure Italian Bees and Queens for sale. Circulars sent free. Address,

G. BOHRER,

March, 1871.

Alexandria, Madison Co., Ind.

## ITALIAN BEES.

Full stocks and Queen Bees of undoubted purity, for sale throughout the season, at very low figures. Queens sent by mail. Send ten cents and get receipt for making "Stimulative Bee Feed," to be fed in the hive. Circulars free. Address,

T. G. MCGAW,

Lock box 64,

March, 1871, 6mos. Monmouth, Warren Co., Ill.

## Advertisement.

Territory for the "THOMAS' HIVE," in Illinois, Iowa, and Missouri, can be obtained of

PALMER BROS.,

New Boston, Ills.

Send stamp for circular.

April, 1871.—3ms.

## Italian Queen Bees.

I shall breed ITALIAN QUEEN BEES for sale the coming season, from Imported Mothers of undoubted purity. My patrons may rest assured of being honorably dealt with. Orders solicited. Send for circular.

WM. W. CAREY,

Colerain,

April, 1871.—5ms.

Franklin Co., Mass.

## ITALIAN QUEEN BEES.

My health being partially restored, I expect to rear, for sale, this season, a limited number of

Choice Italian Queens,

bred exclusively from imported queens, and fertilized if possible by drones from imported mothers.

The price of such queens, when fully tested, by examining their hatching brood, in large nuclei or full stocks will be ten dollars. If sent before they are tested, five dollars.

For further particulars, send for circular.

L. L. LANGSTORTH,

Feb. 1871—tf

Oxford, Butler Co., Ohio.

## REMITTANCES RECEIVED.

A Green, \$1; D. A. Brockway, \$2; J. Halenback, \$2; G. Hopewood, \$2; L. Mefford, \$2; A. Stebbins, \$2; W. H. Furman, \$3.50; T. Hair, \$2; D. M. Miller, \$2; J. B. Townley, \$2; G. Cork, \$2; W. J. Bassett, \$2; L. Haile, \$2; E. Kretchmar, \$2; D. M. Clark, \$2; Dr. J. Gannaway, \$2; H. Longworthy, \$2; J. Brand, \$2; Rev. J. Hussey, \$2; J. Heddon, \$2; R. Barnard, \$2; H. C. Durborow, \$2; W. Muth-Rasmussen, \$2; C. Monk, \$2; J. Emens, \$2; C. Grimm, \$2; E. Barritt, \$3; C. A. Camp, 50cts.; Dr. E. P. Abbe, \$2; J. B. Hadley, \$2; J. Russell, \$2; S. Byram, \$2; Mrs. P. Johnson, \$2; R. S. Williams, \$2; J. Wilson, \$2; G. Kingle, 50cts.; H. J. Harrison, \$1; O. C. Walte, \$2; J. P. Cure, \$2; W. Benedict, \$2; J. A. Maxfield, \$2.20; J. M. Price, \$4.25; Wells Bros., \$1; J. Kendall, \$2; R. Harrington, \$2; J. Jones, \$2; Rev. S. Aughey, \$2; Dr. M. A. O'Neal, \$2; Dr. J. L. Prentiss, \$2; H. S. Wells, \$2; S. M. Farrar, \$2; Dr. W. F. Bason, \$1; R. T. Dyer, \$1; W. G. Clemens, 50cts.; H. W. Gill, 50cts.; Rev. J. W. Shearer, \$1; D. H. Woolridge, 50cts.; H. G. Balentine, 50cts.; G. Buckels, \$5; E. Easterwood, 50cts.; J. W. Keyt, \$2; J. McKee, \$2; H. B. Williams, \$2; H. Peck, \$1; W. Spedding, \$1; Rev. W. W. Colmery, \$2; Seth Gifford, \$2; R. Bickford, \$10; S. C. Brown, \$5; C. Cromer, \$2; J. Divecky, \$1; H. Tremeyer, \$5; A. C. Attwood, \$2; J. Lovell, \$2; J. A. Weissenfels, \$1; G. F. Palmer, \$1; G. H. Birdsall, \$2.

A. GRAY, 1871.  
Formerly of Rely, O.

J. W. WINDER,  
Of Cincinnati, O.

IMPORTERS & BREEDERS OF

## ITALIAN QUEEN BEES.

We would respectfully announce to our bee-keeping friends of America, that we have our arrangements completed to breed our Queens in Ludlow, Kentucky, opposite Cincinnati, isolated from all impure stock; which is a great advantage to our patrons as well as to ourselves.

Our Queens will be bred from imported stock, from the apiaries of Dr. Blumhoff, Prof. Monn, and Edward Uhle, of the highlands of Italy. All our Queens sent from the apiary are WARRANTED PURE, and satisfaction guaranteed.

Prices to suit the times.  
April, 1871.

GET THE LATEST!



GET THE BEST!!

## GRAY'S HONEY SLINGER.

(Patent applied for.)

This melextractor is now perfected and offered to the bee-keepers of America for the first time. This machine is made of heavy tin, and well painted or japanned (except the wood work). It is very light, and can be sent by Express, without packing. It was exhibited for the first time at the Cincinnati Convention of Bee-keepers, and was very highly recommended by all the bee-keepers present.

April, 1871.

## WAX EXTRACTORS.

We also manufacture this new apparatus for extracting Wax from old and worthless combs, which has now been fully tested. Mr. A. Grimm writes us that he has extracted two hundred and six (206) pounds of the nicest Wax he ever saw, although some of the comb was from ten to twelve years old; and that the bee-keepers of America owe Mr. Gray many thanks for importing and introducing so useful an invention. Every apiarian should have one of these Wax Extractors.

For further information of the above machines, send for descriptive circular, free.

Address,

**GRAY & WINDER,**

132 West Fourth Street,

Cincinnati, Ohio.

April, 1871.—6ms.

## PRICES OF BEES AND QUEENS,

*For the Year 1871.*

FULL COLONIES of ITALIAN BEES, with tested pure Queens of last summer's raising, in a Langstroth movable comb hive, for 8 frames full of comb, and honey enough to last until May 20th, I will deliver at the Express office at Jefferson station, between the 20th of April and June 1st, for \$15 each.

Six Colonies for \$14 each.

Ten Colonies for \$135.

Twenty Colonies for \$250.

Any number above twenty at \$12 each.

ITALIAN QUEEN BEES, whose worker progeny has hatched in my apiary, and shows by its marking that they have met with an Italian drone, I will sell at the following prices:

If sent from April 20th to May 5th, \$8; May 5th to June 1st, \$7; during the month of June, \$6; during the months of July, August, and September, for \$4. If from ten to twenty queens are ordered, a reduction of 10 per cent. will be made; if above twenty, a reduction of 20 per cent. Untested Queens, whose purity I guarantee, I will sell after June 25th for \$2.50 each.

All Queens will be sent by mail post-paid. The box or boxes in which the Queens are sent must be opened in presence of the Postmaster, and a certificate from him must be sent by return mail, if one or more of the Queens should have died during shipment; on receipt of this certificate from the Postmaster, another Queen will be sent, or the money refunded.

YOUNG SWARMS OF ITALIAN BEES, medium sized, with a tested pure Queen of last summer's raising,—sent in a common shipping box, with feed enough to stand the journey,—if shipped before June 25th, will be sent for \$9; between June 25th and July 10th, for \$8; from July 10th to August 1st, for \$7; and after that time for \$6.

All claims on account of impurity of Queens or Stocks must be made within 40 days after receipt of Stocks or Queens, or they will not be noticed.

In some cases, where claims are made on account of losses incurred during shipment, I will demand an affidavit setting forth the facts in the case, before I will satisfy the claims.

Safe arrival and purity guaranteed in every shipment. The cash must accompany every order, or it will not be noticed.

ADAM GRIMM,

Jefferson, Wis., April, 1871.



## HONEY KNIVES.



We offer this season a knife for uncapping combs, which is very much superior to the one sold by us last year. They are made of the finest English cutlery steel, are tempered, and are warranted.

Price by Express, single . . . . \$1 00  
" Mail, prepaid . . . . . 1 25

A liberal discount made when ordered by the dozen, or more. Address,

**J. L. Peabody & Co.,**

June, 1871.—tf. Virden, Ills.

## ITALIAN QUEENS.

During the coming season, I shall sell queens at the following prices:—

For one queen . . . . . \$2 50  
For three queens . . . . . 7 00  
For five queens . . . . . 10 00  
For thirteen queens . . . . . 25 00

☞ Ten queens and a Peabody Honey Extractor sent for \$32.00.

All queens sent by mail, when the distance is not too great. Purity and safe arrival guaranteed. Send money in registered letter, or by post-office money order on Salem P. O., Mass.

**H. ALLEY,**

Wenham,

June, 1861.—tf. Essex Co., Mass.

## NOVICE'S ADVERTISEMENT.

Kind reader, this is the advertising column, and we too have something to sell, and having paid for the privilege of holding forth its merits, we crave your attention.

## NOVICE'S HONEY KNIFE

is made of fine steel and tempered, sharp on both edges, has a neat and finely finished handle, and is sufficiently good looking and serviceable generally, that we have not hesitated to have our name stamped thereon.

Price by Mail . . . . . \$1 25  
" Express . . . . . 1 00  
or for half a dozen . . . . . 5 00

As they are rather heavy, they had better be expressed, and by neighbors sending together for half a dozen, the expense is but little.

Liberal rates to dealers by the quantity.

We can also furnish Peabody's Melextractors at his prices.

Orders may be sent here, or to B. H. Stair & Co., 115 Ontario street, Cleveland, Ohio.

Address,

**A. I. ROOT & CO.,**

June, 1871.—tf. Medina, Ohio.

## PRICES CURRENT FOR 1871. OF

## Italian Queen Bees.

In the Institution for keeping bees at Roveredo, Canton Grisons, Italian Switzerland, mother bees are sold at the following prices:—

1. A well fructified queen bee, properly packed with the necessary companion bees, and carriage paid to New York, costs exclusive of duty; in April, 16 francs; in May, 15 francs; in June, 14 francs; in July, 13 francs; in August, 12 francs; in September, 11 francs, and in October 10 francs.

2. On an order for 24 queens, 10 per cent. discount is allowed; on 50 queens, 15 per cent.; on 100 queens, 20 per cent., and on 500 queens, 25 per cent.

3. The prices are charged from the day of departure of the bees.

4. The amount has to be inclosed with the order; it can be remitted in good bills of exchange.

## OBSERVATIONS.

The bees are packed very carefully with sufficient honey for at least 30 days, and therefore the safe arrival at the place of destination can be expected, except under unfavorable circumstances. Nevertheless the transport is much safer if the queens are unpacked in England, (which is nearly half the distance to New York,) and are only forwarded to America if in a good state of preservation.

For this purpose I have addressed myself to Messrs. Geo. Neighbour & Sons, of 149 Regent Street, London, and deputed them to take in hand the business of sending queen bees to America.

Those bee-keepers who fear the danger of a long voyage, will therefore apply to the said gentlemen; their terms are given below. I have known Messrs. Neighbour & Sons for several years, as apt bee-keepers and safe business men. I am convinced that they will only dispatch queens that are from my apiary.

Bee Masters of the United States who, direct or indirect, have received queens from me, will be able to judge of their quality.

ROVEREDO, Canton Grisons,  
Italian Switzerland.

**EDWARD UHLE,**  
Director.

March, 1871.

## PRICES IN LONDON.

In accordance with the aforesaid, we undertake to send Italian Alp queens from Mr. Edward Uhle. We shall have a supply of these queens in our apiary, repack them with fresh companion bees, see that plenty of food is sent with them and forward, freight paid, by the swiftest steamers to New York, at the following prices: In May, \$5 each queen; in June, \$4½; in July and August, \$4; in September and October, \$3.

Queens can only be sent in parcels of twelve, twenty-four, and upwards.

The amount is to be remitted either by bills of exchange or dollars notes, which may be safely send in registered letters, and must accompany the order.

Every care will be exercised to insure safety, but the queens are sent at the risk of the party ordering. Postage on letters to be prepaid. Persons ordering queens will be advised by post when the same will be forward.

The passage from Liverpool to New York is now performed in so short a time, that there is every prospect of safe arrival; and the speedy execution of order will be insured.

**GEO. NEIGHBOUR & SONS,**

Apiarians,  
149 Regent Street,  
LONDON.

April, 1871.

BANKERS, London and Westminster Bank.

